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***INTELLECTUAL PROPERTY STRATEGY – A COMPARATIVE BUSINESS
PERSPECTIVE CONSIDERING CHINA, JAPAN, USA AND CERTAIN
EUROPEAN JURISDICTIONS***

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“Your talent is Gods gift to you. What you do with it is your gift back to God”.....author unknown

ABSTRACT

The East has been an attractive business environment, and has become more so, to Western “society”.

It is recognised, that for Western businesses to commercialise technology and intellectual property in the East and particularly in China, the reliance upon traditional conventional intellectual property protection mechanisms as known and implemented in the western world, is inadequate.

This study is limited to technology based companies and transactions, but it provides a basic overview of the changes in intellectual property laws in jurisdictions relevant to the topic of this thesis, and in particular addresses the impact on Chinese and Japanese laws due to TRIPS and WTO.

Intellectual property laws create exclusive rights that provide incentives for innovation by ‘establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression.’ These property rights promote innovation by allowing intellectual property owners to prevent others from appropriating much of the value derived from their inventions or original expressions. These rights can facilitate the commercialisation of inventions or expressions and encourage public disclosure, thereby enabling others to learn from the protected property.

National intellectual property laws, need to incorporate the provisions of the TRIPS Agreement. This study considers the implication of TRIPS for China and other jurisdictions.

Finally the study in particular considers the role of cultural sensitivity in business associations with China and Japan and illustrated the importance thereof for any successful business venture in these Asian countries.

In studying the different approaches followed by China and Japan, as opposed to the USA and Europe, it is essential that businesses realise that intellectual property protection is more than mere legal protection. The law alone is not enough to protect intellectual assets.

CONCLUSION

Technology changes have made IP more portable and the effectiveness of current intellectual property enforcement mechanisms less effective. As more countries enter the international markets the level of IP infringement is increasing and the value of IP rights diminishing.

Multinational corporations must plan their value management strategy anticipating the changes in the competitive landscape and develop more fundamental IP strategies that effectively allow them to deal with root problems causing IP erosion. The strategy should include global matters that threaten intellectual property value. This approach will result in a business model that will sustain the long term values of IP assets of the corporation. Companies need to evaluate how IP transfer will affect their overall businesses, including scenario planning and assessment of potential IP vulnerabilities and changes to the dynamics of the current IP environment.

My research has shown that Western businesses tend to follow a fundamental IP strategy shift from merely protecting IP through legal means, to holistically cultivating and preserving value (i.e. resisting IP value erosion) through higher-level business strategies. The approach proposes moving IP activities away from being a primarily legal function to becoming a strategic imperative for the core operations of our enterprise and a core responsibility for, in particular, business management in China.

Business models vary, depending on the industry, but in the main technology chain out-licensing, outright sale of IP and combined models of license and manufacturing are applied. In most instances businesses believe that it is essential to have locally (in-China) employed management as this assist with cultural assimilation.

Overall businesses, that participated in the IP strategy survey, are of the opinion that IP matters are changing in China and that the 'space' is being watched, in particular to see the practicality of WIPO and US pressure on conforming to international acceptable IP practises. It is however clear that a western IP business model simply imposed on China and Japan will not be successful.

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ACRONYM	DESCRIPTION
ABA	AMERICAN BAR ASSOCIATION
AIPA	The American Inventors Protection Act
AIPLA	American Intellectual Property Law Association.
Aqsiq	Administration for Quality Supervision, Inspection and Quarantine (China)
BC	The basic people's courts of China
BPAI	The USPTO Board of Patent Appeals and Interferences
C.F.R.	Code of Federal Regulations of the United States
CIO	Is a news blog that offers various discussion and information bits on
CIPRH	Commission on Intellectual Property Rights, Innovation and Public Health
CREST	The European Union Scientific and Technical Research Committee (CREST) was asked to act as an interface to define and oversee the implementation of the open method of co-ordination (OMC) in respect of the 3% objective
DDA	Doha Development Agenda
Directive 2004/48/EC	Directive of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights. The Directive requires all EC Member States to apply effective, dissuasive and proportionate remedies and penalties against those engaged in counterfeiting and piracy. The Directive leaves unaffected the substantive provisions on intellectual property, international obligations of the Member States and national provisions relating to criminal procedure and criminal enforcement. In short, the Directive adds extra measures on enforcement of digital copyright while leaving national law in other areas unaffected.

ACRONYM	DESCRIPTION
DOE	Japan recognizes patent infringement under the Doctrine of Equivalents (DOE)
ECID	Economic Crime Investigation Department in China
EEA	European Economic Area
EPC	European Patent Convention
EPC 2000	European Patent Convention (EPC) as revised by the Act Revising the Convention on the Grant of European Patents signed in Munich on November 29, 2000. On June 28, 2001, the Administrative Council of the European Patent Organisation adopted the final new text of the EPC 2000. The EPC 2000 entered into force on December 13, 2007
EPO	European Patent Office
EU	European Union
EU Treaty	Treaty on European Union and of the Treaty establishing the European Community, incorporating the amendments made by the Treaty of Athens, signed on 16 April 2003
Euro-PCT	PCT application having priority from an EPO application in the first instance
FICPI	Fédération Internationale de Conseils en Propriété Industrielle (International Federation of Intellectual Property)
File wrapper (prosecution history) estoppel	Prosecution history estoppel, also known as file-wrapper estoppel, is a term used in United States patent law to indicate that a person who has filed a patent application, and then makes amendments to the application to accommodate the patent law, has no cause of action for infringement to the pre-amendment patent claims that were amended.
Fortune 500	The Fortune 500 is an annual list compiled and published by Fortune magazine that ranks the top 500 U.S. closely held and public corporations as ranked by their gross revenue after adjustments made by Fortune to exclude the impact of excise taxes companies collect. The list includes publicly and privately-held companies for which revenues are publicly available. The first Fortune 500 list was published in 1955.

ACRONYM	DESCRIPTION
FTC Act	US Federal Trade Commission Act
GATT	General Agreement on Tariffs and Trade
GDP	Groce Domestic Product
GIPI	Global Intellectual Property Index
HC	The higher people's courts of China
IC	The intermediate people's courts of China
IP	Intellectual Property
IPER	International Preliminary Examination Report
IPHCJ	The Intellectual Property High Court of Japan
IPR	Intellectual Property Rights
JFTC	Japan Fair Trade Commission
JPO	Japan Patent Office
M&A	Mergers and Acquisition
MFN	Most Favourite Nation: Under the WTO agreements, countries cannot normally discriminate between their trading partners. Grant someone a special favour (such as a lower customs duty rate for one of their products) and you have to do the same for all other WTO members.
MIT	Massachusetts Institute of Technology

ACRONYM	DESCRIPTION
MOFCOM	Ministry of Commerce
MOU	Memorandum of Understanding
MPEP	Manual of Patent Examining Procedure (USPTO)
MPS	The Ministry of Public Security in China
NCA	National Copyright Administration (China)
NPE	Non-Practicing Entities
OD	Opposition Division
OECD	Organisation for Economic Cooperation and Development
OFF	Office of First Filing
OMC	Open Method of co-ordination
OPSI	Office of Public Sector Information
OSF	Office of Second Filing
P&G	Procter & Gamble
PACE	Programme for Accelerated Prosecution of European patent applications
PCIIP	Policy Committee on Innovation and Intellectual Property
PCT	Patent Co-operation Treaty

ACRONYM	DESCRIPTION
PCT-PPH	PPH program using PCT international work products (WO and IPER)
PLEC	Patent Licensing and Enforcement
PPH	Patent Prosecution Highway
PRB	Patent Re-examination Board (of SIPO)
PriceWaterhouseCoopers	PriceWaterhouseCoopers LLP an American Limited Liability Partnership
PROs	Public Research Organisations
PTO	Patent Office
R&D	Research and Development
ROI	return on investment (ROI)
SAIC	State Administration for Industry and Commerce (China)
SIPO	State Intellectual Property Office (of China)
SIR	Statutory invention registration
SNQ	substantial new question - relate to subject matter for re-examination proceedings at the USPTO
SPC	Supplementary Protection Certificate
SPC	Supreme People's Court (of China)
SPP	Supreme People's Procuratorate (SPP)

ACRONYM	DESCRIPTION
TLO	Technology Licensing Offices
TRIPS	Trade-Related Aspects of Intellectual Property Rights
TSB	Technology and Science Bureau (China)
TTBER	Technology Transfer Block Exemption Regulation
U.S.C.	United States Code (U.S.C.) is a compilation and codification of the general and permanent federal law of the United States.
UKIPO	United Kingdom Intellectual Property Office
UN	United Nations
Uruguay Round	The Uruguay Round is a round of multilateral trade negotiations conducted within the framework of the General Agreement on Tariffs and Trade (GATT), spanning from 1986-1994 and embracing 110 countries as “contracting parties”. The Round transformed the GATT into the World Trade Organization. The Round came into effect in 1995 and has been implemented over the period to 2000 (2004 in the case of developing country contracting parties) under the administrative direction of the newly created World Trade Organization (WTO). The Uruguay Round Agreement is administered by the WTO. It provides for converting quantitative restrictions to tariffs and for a phased reduction of tariffs.
US PTO	United States Patent Office
USA	United States of America
WIPO	World Intellectual Property Organisation
WO	Written Opinion
WTO	World Trade Organisation

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LEGISLATION AND INTERPRETATION NOTES

Amended Copyright Law of the People's Republic of China - 2001

Amended Patent Law of the People's Republic of China - 2009

Amended Trademarks Law of the People's Republic of China - 2001

American Inventors Protection Act of 1999, Pub. L. No. 106-113, 113 Stat. 1501 (1999)

Code of Federal Regulations of the United States

Criminal Code of the People's Republic of China

Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights (also known as "(IPR) Enforcement Directive" or "IPRED")

Drug Price Competition and Patent Term Restoration Act, informally known as the "Hatch-Waxman Act" [Public Law 98-417]

French Patents Act (English Translation)

Implementing Rules of the Trademark Law of the People's Republic of China - 1995

Intellectual Property and Communications Omnibus Reform Act of 1999

Intellectual Property Industry Standards of the People's Republic of China (Standard for Patent Application Number) - 2003

Japan Patent Act Law No. 121 of April 13, 1959, as last amended by Law No. 30 of 1990) as revised 2006 and 2008 (English translation <http://www.bepats.co.jp/Home/Eibun2007/PatentBODY.htm>)

Measures for Administrative Enforcement of Patent - 2001

Measures of the General Administration of Customs of the People's Republic of China for the Implementation of the Regulation of the People's Republic of China on the Customs Protection of Intellectual Property Rights - 2004

LEGISLATION AND INTERPRETATION NOTES

Opinions of the MOFTEC and the State Intellectual Property Office on Strengthening the Administration of Patents in Foreign Trade - 2003

Patentgesetz [Patent Act], Dec. 16, 1980 BGBl. 1981

Provisions on the Implementation of the International Copyright Treaties - 1992

Regulations for Implementation of the Copyright Law of the People's Republic of China - 2002

Regulations of the People's Republic of China on Recordal of Licensing Contracts for Patent Enforcement - 2001

Rules of Transition on Implementing the Revised Patent Law and the Implementing Regulations - 2001

Sherman Antitrust Act (1890) (The Sherman Antitrust Act (Sherman Act, [1] July 2, 1890, ch. 647, 26 Stat. 209, 15 U.S.C. § 1–7) requires the United States Federal government to investigate and pursue trusts, companies and organizations suspected of violating the Act. It was the first Federal statute to limit cartels and monopolies, and today still forms the basis for most antitrust litigation by the United States federal government.

South African Copyright Act 98 Of 1978

South African Designs Act 195 Of 1993

South African Patents Act 57 Of 1978

South African Trade Marks Act 194 Of 1993

US Federal Trade Commission Act

CASE LAW
<i>Bristol-Myers Squibb vs. Rhône Poulenc Rorer</i> 2001 WL 1512597
<i>Canon Inc v. Recycle Assist Co. Ltd.</i> , 2005 (ne) 10021 (Intellectual Property High Court, January 31, 2006)
<i>Canon Inc v. Recycle Assist Co. Ltd.</i> , 2005 (ne) 10021 (Intellectual Property High Court, January 31, 2006)
<i>CHINT v. SCHNEIDER - Patent Infringement</i> (Sept 2007) Intermediate People's Court on September 26, 2007
<i>Continental Paper Bag Co. v. Eastern Paper Bag Co.</i> , 210 U.S. 405 (1908) (Supreme Court)
<i>Dawson Chemical v. Rohm and Haas</i> , 448 U.S. 176, 215 (1980) (US Supreme Court)
<i>eBay, Inc. v. MercExchange, L.L.C.</i> , 547 U.S. 388, 392-94 (2006)
<i>FESTO CORPORATION v SHOKETSU KINZOKU KOGYO KABUSHIKI CO., LTD.</i> 234 F.3d 558, 56 U.S.P.Q.2d 1865 (Fed.Cir. November 29, 2000),
<i>Fujitsu Ltd. vs. Texas Instruments Inc.</i> Tokyo Supreme Court April 11, 2000
<i>Fujitsu Ltd.v. Texas Instruments Inc.</i> Tokyo High Court 10 September, 1997
<i>Improver Corporation v Remington Consumer Product Limited</i> [1990] F.S.R. 181
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INTRODUCTION

The East has been, and is increasingly becoming an attractive business environment to Western 'society'. Initially the cheap labour available in the East has meant that Western companies have striven to invest in the East to ensure that products (often designed in Western countries) are manufactured in factories based in Asian countries.¹

It is recognised that for Western businesses to commercialise technology and intellectual property in the East and particularly in China, the reliance upon traditional conventional intellectual property protection mechanisms as known and implemented in the western world, is inadequate. The Chinese economy is buoyant and the balance of payments is in stark contrast to western countries.

China's current account balance in 2009 was nearly US\$264 billion at 6.1 per cent of its GDP.² Much of this is based on production of goods for western economies that are designed in the West, but the proportion of original designs is increasing. China has grown significantly. Its vigorous expansion continued in early 2010 and GDP growth is projected to exceed 11 per cent this year.³ China is becoming a significant player in world markets. China is now the third-largest trading nation and one of the fastest-growing markets for western goods and services.⁴ Its GDP is worth 4326 billion dollars or 6.98 per cent of the world economy.⁵ There are thirty-seven Chinese companies among the *Fortune* 500 as reported in the 2009 results, of which 3 are among the top fifteen companies.⁶ The most recent report of USA exports to China shows a growth of 50 per cent in the first quarter of 2010 over the same period last year.⁷ It is however clear from statistics that export-driven China is shifting its development strategy to rely more on domestic consumption. In fact, Chinese companies increased their acquisitions of foreign companies and resources tenfold from 2003 to 2007. Moreover, deals are no longer focused on acquiring raw materials and natural resources.

¹ Company Brochure PriceWaterhouseCoopers, "Redefining Intellectual Property Value." The Case of China", October 2005 can be viewed at http://www.pwc.com/en_US/us/technology-innovation-center/assets/ipr-web_x.pdf (last visited on 26 May 2010)

² OECD Economic Outlook, May 2010, Flashfile: summary of projections by country (XLS) available on-line at http://www.oecd.org/statisticsdata/0,3381,en_2649_34573_1_119656_1_1_1,00.html (Last visited on 15 June 2008)

³ OECD Economic Outlook No. 87, May 2010 available on-line at http://www.oecd.org/document/18/0,3343,en_2649_33733_20347538_1_1_1_1,00.html (Last visited on 15 June 2008)

⁴ A survey (May 2008) by McKenzie shown that China is still preferred for its low production cost, but that competition from China is more than from any other emerging market. - http://www.mckinseyquarterly.com/article_print.aspx?L2=21&L3=33&ar=2147 (Last visited on 15 June 2008)

⁵ Global Economics Research on <http://www.tradingeconomics.com/Economics/GDP.aspx?Symbol=CNY> – (last visited 26 May 2010)

⁶ In December 2008 there were only 12

⁷ China English.news.cn 2010-05-19 09:54:56 as published on http://news.xinhuanet.com/english2010/china/2010-05/19/c_13302901.htm (Last visited on 26 May 2010)

Rather, the goal is to acquire strategic assets across a broad swath of industries and geographies and outside of home territory through successful M&As.⁸

This is quite clear from statistics that show China's imports from other countries to have decreased on average with 7 per cent; with USA imports specifically 4.2 per cent lower in 2009 than it was in 2008.⁹ Nevertheless, China still provides excellent opportunities for western companies contemplating foreign expansion.

International pressure to get China accepted as a member of various international organisations, is clear. The Organisation for Economic Cooperation and Development (OECD) is an example. The OECD is considered the 'Country Club of the rich'. It has thirty-one members, comprising most of the major world economies, yet only 2 (Japan and South Korea) are Asian Countries. In May 2007 the OECD agreed to invite Chile, Estonia, Israel, Russia and Slovenia to open discussions for membership of the OECD. Enhanced engagement was offered with a view to possible membership, to Brazil, China, India, Indonesia and South Africa. For the purpose of this study the OECD is important from a business and strategic perspective, as it specifically explores the role of Intellectual Property Rights (IPRs) in stimulating the diffusion of knowledge and fostering innovation. It studies the economic impact of IP regimes in high-tech industries and in public research; assesses policies and institutional practices for IP management and exploitation; and develops indicators to assess the effectiveness of technology transfer.¹⁰ Specific mention should be made of one of the OECD studies in 2005 that indicated that IPRs can play an important role in enabling enterprises in developing nations to access and exploit technologies and know-how through licensing agreements with parties in developed nations.¹¹

Another important organisation is the World Trade Organisation. It has one hundred and fifty two¹² member states but only a relatively small number of Asian Countries are members.¹³ The Uruguay Round of negotiations that resulted in the formation of the WTO included an agreement on Intellectual Property Rights (TRIPS) which has required many members of the organisation to radically modify their intellectual property right regimes, in order to bring them in line with the requirements of the WTO.

⁸ McKenzie Quarterly, China's track record in M&A, June 2008

⁹ <http://www.uschina.org/statistics/tradetable.html> last visited at 26 May 2010

¹⁰ See <http://www.oecd.org>

¹¹ Walter G. Park and Douglas Lippoldt, "International licensing and the strengthening of intellectual property rights in developing countries during the 1990s" OECD Economic Studies No. 40, 2005/1

¹² As of 16 May 2008 – www.wto.com

¹³ China joined on 11 December 2001 and Japan has been a member since 1 January 1995

The presence of a 'level playing field' in intellectual property law is required by the agreement, but innovators are not required to protect their inventions in particular countries. In many of the member states few inventions are protected.

There will be an increased demand for an intellectual property business model and strategy approach which represents a fundamental shift from merely protecting intellectual property through legal means, to holistically cultivating and preserving value (i.e. resisting intellectual property value erosion) through higher-level business strategies.

It is well-known that China has drawn significant attention in the past few years, being perceived as a high-risk intellectual property environment even after joining the WTO in 2001. It is well-documented that various forms of intellectual property misappropriation is widespread in China. (Historically, China has a low regard for the concept of private property rights and has a public interest focus.) The mixed motives of Chinese courts and law enforcement entities often result in outcomes unexpectedly adverse to the rights of intellectual property owners.

Although China has created intellectual property laws that generally adhere to international standards, poor enforcement continues to frustrate the efforts of companies to protect their intellectual property in China.

On the opposite side of China is Japan¹⁴ which is known for its well developed intellectual property structures and strategies. The mature markets of Japan will be compared to the emerging market of China.

It is important to note that China has only recently become a member of the WTO and as such is required to implement the TRIPS agreement.¹⁵ In addition, the protocol of accession states its obligations under the TRIPS agreement to specifically be the amendment of its Copyright, Trade mark and Patent Law, as well as relevant implementing rules covering different areas of the TRIPS Agreement, bringing all such measures into full compliance with and full application of the TRIPS Agreement and the protection of undisclosed information, and enhanced IPR enforcement efforts through the application of more effective administrative sanctions.

¹⁴ Japan was a founding member of the WTO (1995) whilst China only became a member in 2001.

¹⁵ See http://www.wto.org/english/thewto_e/countries_e/china_e.htm (Last visited on 26 May 2010)

The aim of this thesis is further to discuss the role of cultural sensitivity in business associations with China and Japan and illustrating its importance for any successful business venture in these Asian countries.

For example, the importance of building relationships with Chinese partners (*Guanxi*) and understanding what their motives and their ethics are; as has been stated of China 'the relationship may be more important than the law'.¹⁶

In studying the different approaches followed by China and Japan as opposed to the USA and Europe, it is essential that businesses realise that intellectual property protection and associated strategies are more than mere legal protection.

The law alone isn't adequate to protect intellectual assets. A company should assign explicit responsibility for its intellectual property to senior managers who are familiar with all aspects of the business and able to focus their energies on controllable elements of intellectual property protection. Achieving the right mix of legal, operational, and strategic considerations is difficult. Companies certainly cannot protect all of their intellectual property all of the time at every location. Yet those that succeed are more likely to build successful businesses in China.

While many western companies have been successful in China, foreign businesses tend to underestimate the challenges encountered when doing business in China, or with the Chinese.

¹⁶ CIO Magazine , June 15, 2006 , Chapter 19, "When East Meets West on Intellectual Property (IP) Rights", by Ben Worthen, viewed on http://www.cio.com/article/21966/When_East_Meets_West_on_Intellectual_Property_IP_Rights (Last visited on 26 May 2010)

CHAPTER I-DEFINING INTELLECTUAL PROPERTY AND INTELLECTUAL PROPERTY RIGHTS

1 Introduction

It is generally accepted in the business community that intellectual property is not merely a set of legal assets but also a set of business assets. In itself, intellectual property has no significant value.¹⁷ This is a fundamental property of these species of intangibles. It becomes valuable only in the context of the business and only where it is explicit that intellectual property supports the corporate technology and business strategies, and/or when they are processed through the organisation's other business assets (such as manufacturing or distribution) to produce a protected product or service, attractive to customers.

The value of intangible assets is a changing paradigm. Intellectual property is fast becoming a focus for capital markets and the investment community. It is a tradeable commodity in its own right and serves as a vital tool for a company's ability to sustain its competitive advantage. Intellectual property value has seen a dramatic increase in recognition in recent years. It can virtually be seen as a currency; a trade among competitors. This is evident from the patent cross-licensing¹⁸ efforts between large competitors across various industries.¹⁹ Cross-licensing is an efficient form of licensing which saves on the transaction costs of licensing on a patent-by-patent basis. It provides freedom to design and operate for companies operating in similar technologies and markets without the risk of patent infringement. Royalties are calculated as the difference between the values to each party of the other's portfolio. If the respective values are more or less in balance, the nett payment may be small, or in some cases even zero. Depending on the nature of the transaction, i.e. simple patent cross-licensing to highly complex intellectual property and business technology cross-licensing, the value of this tool should not be underestimated.²⁰

¹⁷ WIPO Magazine: IP and Business: Managing IP as a Set of Business Assets, February 2008, By Patrick Sullivan and Suzanne Harrison

¹⁸ A cross-licensing agreement is a contract between two or more parties where each party grants rights to their intellectual property to the other parties, generally cross licenses are typically an agreement to license each other's patents in a given filed for a limited period of time.

¹⁹ A Google search for patent cross licensing in specific industries: electronics (230 000), software (273 000), chemicals (151 000) and pharmaceutical (about 133 000) industries.

²⁰ For a description and application of cross-licensing see "Managing Intellectual Capital: Licensing and cross-licensing in Semiconductors and Electronics", California Management review, Vol. 39.2 by Grindley and Teece (1997)

2 Intangible assets

In order to manage intellectual property effectively as business assets and derive appropriate and effective intellectual property business models to successfully exploit the true value of this asset, it is necessary to understand what intellectual property is and what it does for the business.²¹

It is furthermore critical to understand the difference between intellectual property and intellectual property rights. Many poor business decisions²² have been made because of a misunderstanding. Intellectual property describes the subject matter, i.e. what it is. Intellectual property rights define what can be done with that subject matter. This is an important distinction. Ownership of intellectual property is of lesser importance, as it is quite possible to own intellectual property but have no rights to use it.²³ Equally you may have all the rights you need to use the intellectual property as you wish, without wanting to own it. This becomes an important aspect when technology exploitation or licensing is addressed.

Intellectual property and the rights associated with it furthermore need to be seen in context with the multinational conventions, treaties and bodies that govern the intellectual property globally. These treaties set the standards and regulations for obtaining these rights but in some cases place limitations on the exploitation of these rights.

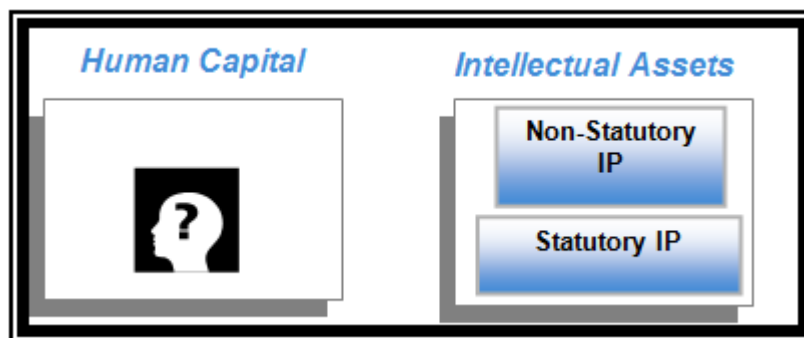


Figure 1 *Illustration of intangible assets*²⁴

²¹ Innovation Management, September-November 2007, Nr 3, "The systematic route from business model to IPR strategy

²² Best Practices in Intellectual Property Management, v.10, Peter Ivey, Innotec Ltd and the EPPIC Faraday Partnership, 2004.

²³ As is the case for example in an exclusive license-licensee relationship

²⁴ Jutta Law, ISSN 1021-7061, Intellectual Capital, 2002, M van der Merwe

2.1 Intellectual capital

Intellectual capital is something of value and a product of the human mind. It comprises non-structural intellectual property or human capital and intellectual assets. Human capital includes typically - know-how, skills, brainpower, abilities and knowledge of individuals. Know-how includes any and all factual knowledge that is mostly not capable of precise or separate description, that has been acquired through application in research, development, trade and industry, and that provides the acquirer with an advantage above a party, that has not acquired the factual knowledge in accordance with research and/or development. Although human capital cannot be owned by a company, it can be managed, i.e. by physically positioning employees in positions to the maximum benefit of the company.

2.2 Intellectual assets

Intellectual assets comprise structural intellectual property, including statutory²⁵ and non-statutory intellectual property. In essence, intellectual assets are human capital that has been reduced to a material form, i.e. codified knowledge. As codified knowledge it becomes an intangible asset to the company that can be owned, controlled and managed independently. A further difference between non-statutory and statutory intellectual property is that statutory intellectual property is regulated by statutes of the country of relevance, whereas non-statutory intellectual property is governed by common law.

Intellectual property includes trade marks, service marks, trade names, domain names, logos, get-up, patents, provisional patents, innovation patents, petty patents, inventions (whether patentable or not), know-how (including confidential industrial and commercial information and techniques in any form), utility models, registered and unregistered design rights, copyrights, semi-conductor topography rights, database rights, rights in respect of any new or existing compilation of any data or information not covered under any existing copyrights, any structured analysis, reports, application and any resulting know-how or show-how.

²⁵ Governed by Statute

2.2.1 Statutory intellectual property

Statutory intellectual property includes patents, designs, copyright and trade marks. A patent is a monopoly or an exclusive right granted for a specific period of time in terms of the law of a specific country²⁶ to an inventor, or other person(s) entitled to the relevant invention, in exchange for a full disclosure to the public of the best method of applying the invention. It is to be noted however that there are restrictions in relation to the disclosure; for example, there is a delay between filing and the requirement to disclose that is considered important to many patent holders.

The monopoly is described in the claims of the specification and the full disclosure in the body of the specification. A patent is defined according to the statute that is in force in the applicable territory or country. Thus it is a national right and is interpreted according to the law of the country in which it is challenged.

The monopoly does not entitle a patent holder to practise the invention. It is a negative right in the sense that it merely entitles a patent holder to prevent or exclude others from making, using, selling, importing, and offering for sale the invention for the period that the patent is maintained in force. After expiry of the patent term, the public is free to use the invention. A patent is not enforced by the State automatically. It is the responsibility of the patent owner to enforce patent rights through the appropriate courts by means of infringement actions or proceedings. This is unlike copyright in many countries where infringement is seen as a criminal offence, and the state acts rather than the 'rights holder'.

A registered design is a monopoly granted, in some countries, by the State to the proprietor of a design for a specific period of time in exchange for the design being disclosed to the public. A registered design relates to the shape or appearance of an article, i.e. solely judged by the eye. A design is limited to mass-produced goods. Design protection can be obtained in addition to patent, trade mark and copyright protection.

A registered design is based on drawings, photographs or other pictures which clearly illustrate the novel shape or appearance of the relevant article.

²⁶ In South Africa for example the Patents Act 57 Of 1978

As in the case of patents, designs are defined according to the statute that is in force in the applicable territory, or country.²⁷

Trade mark protection is a means of identifying the goods and/or services that can be associated with a particular trade mark proprietor. It comprises any sign capable of being represented graphically including a picture, signature, colour, numeral, shape, configuration, pattern or a container for goods. The function of a trade mark is to distinguish the goods and services of a person from those of others. Trade marks are registered in classes relating to categories of goods and services.

A granted trade mark gives the owner thereof the right to prevent or exclude a third party from using a mark or sign that is identical or confusingly similar to the registered mark or when the goods are identical or so similar that there is a likelihood of confusion or deception, or that there is a likelihood of unfair advantage.

As with patents and designs, a trade mark is defined according to the statute that is in force in the applicable territory, or country.²⁸

Copyright is defined according to the statute that is in force in the applicable territory or country. Copyright is a right given to the creator, author or other person who may own the copyright of certain types of work, to prevent the unauthorised reproduction of the work so protected.²⁹ The types of works covered by copyright include literary works, computer programmes and software, artistic and musical works.

Unlike most other forms of statutory IP, copyright exists automatically and does not require registration, with the exception of cinematographic films. There are however certain requirements that need to be met for this automatic existence to come into being. These requirements relate to the work itself, the person who created the work, and publication of the work. The most important requirements are originality and the reduction to a material form.

Firstly, for the subsistence of copyright, the work itself must be original. This does not mean that the work needs to be novel or non-obvious as is required in the case of patents, but rather that the work is the result of the effort of the creator himself.

²⁷ For example in South Africa it will be Designs Act 195 Of 1993

²⁸ For Example in South Africa it is the Trade Marks Act 194 of 1993

²⁹ In South Africa this is the Copyright Act 98 Of 1978

Secondly, the work must be reduced to a material or tangible form such as a document, drawing, or other optical, mechanical, electronic or other readable form. Copyright cannot exist in the underlying idea but in the actual work itself.

2.2.2 Non-Statutory intellectual property

Non-statutory IP comprises for example non-patentable inventions, trade secrets, quality control procedures, credit ratings, and financing mechanisms.

Trade secrets is information that is expressed in a manner sufficient to distinguish it from general knowledge and skill or that is of (or derives) independent economic value, actual or potential, not generally known to - and not readily ascertainable by legal means - to other persons who may obtain economic value from its disclosure or use; and the subject of reasonable efforts under the circumstances to maintain its secrecy.

Confidential information,³⁰ any proprietary information, technical experience or knowledge, specifications, data, materials, procedures, trade secrets, drawings, designs and know-how - irrespective whether in a written, graphical, tangible, or electronic form or verbal, visual or audible form, or any information in which the proprietor has an interest in, or to a third party that licensed the proprietor to use the same.

It may further include information relating to the identity and other details of customers and suppliers, pricing methods, trade connections, tender procedures and its financial and marketing operations, and all information disclosed to any employee or to which employees obtain access during the course of employment, that the employer has a reasonable basis to believe to be confidential, or that is treated by the company as being confidential may be included as confidential information depending on the nature thereof.

Note that for the purpose of this study only IP forms incidental to the protection of technology and exploitation of technology as part of business strategies have been elaborated on.

³⁰ Sasol Definition Library for IP Contracts, 2006

3 International intellectual property agreements, treaties and organisations

It is important to be aware of the many international intellectual property bodies, agreements, treaties and organisations that exist and that have an impact on national intellectual property legislation which indirectly, and in many cases directly, influence technology related transactions and business strategy.

As an introduction it is important to understand how GATT and WTO relate. This will place the discussion below in context.

Umbrella	AGREEMENT ESTABLISHING WTO		
	Goods	Services	Intellectual property
Basic principles	GATT	GATS	TRIPS
Additional details	Other goods agreements and annexes	Services annexes	
Market access commitments	Countries' schedules of commitments	Countries' schedules of commitments (and MFN exemptions)	
Dispute settlement	DISPUTE SETTLEMENT		
Transparency	TRADE POLICY REVIEWS		

Figure 2³¹ Relationship between TRIPS and WTO

3.1 World Trade Organisation (WTO)/General Agreement on Tariffs and Trade (GATT)

The GATT was first signed in 1947.³² The agreement was designed to provide an international forum that encouraged free trade between member states by regulating and reducing tariffs on traded goods and by providing a common mechanism for resolving trade disputes.

³¹ US PTO Global Intellectual Property Academy Patent, Trade mark, and Copyright –Law and Policy, Presented on August 27-29, 2007, "PATENTS AND TRIPS: AN OVERVIEW", by Minna Moezie, IPR Attaché, US Commercial Service, US Embassy Cairo – http://www.uspto.gov/web/offices/dcom/olia/conf_gipa2007aug27/agenda/southafrica_2007aug07tripspatents.pdf (Last visited on 26 May 2010)

³² <http://www.law.duke.edu/lib/researchguides/gatt.html> (Last visited on 26 May 2010)

Before the 1986–94 Uruguay Round negotiations, there was no specific agreement on intellectual property rights in the framework of the GATT multilateral trading system.

However, some principles contained in the GATT had a bearing on intellectual property measures taken on imports or exports.

Article XX(d) of GATT 1947 (now Article XX(d) of GATT 1994) specifically referred to intellectual property rights. Under this provision, measures which would otherwise be inconsistent with the General Agreement could be taken (subject to certain conditions) to secure compliance with laws or regulations relating, among other things, to intellectual property rights.

The GATT Final Act Embodying the Results of the Uruguay Round contains several other relevant items:

- the Trade-Related Aspects of Intellectual Property Rights (TRIPS)
- an Agreement on Subsidies and Countervailing Measures that permits some environmental subsidies in section 8.2
- the Agreement Establishing the Multilateral Trade Organization, the WTO.³³

The GATT also created the World Trade Organization (WTO)³⁴ which came into being on 1 January 1995. The WTO implements the agreement, provides a forum for negotiating additional reductions of trade barriers and for settling policy disputes, and enforces trade rules. Until the establishment of the WTO, the GATT functioned *de facto* as an organisation, conducting rounds of talks addressing various trade issues and resolving international trade disputes.³⁵

Annexed to the GATT are various agreements covering goods, services and intellectual property, dispute settlement, trade policy review mechanism and the plurilateral agreements. Annex 1A - Multilateral Agreements on Trade in Goods includes 2 agreements that are of relevance to global technology (and thus intellectual property trading). These form the Uruguay Round Agreement, the Agreement on Technical Barriers to Trade³⁶ and the Agreement on Import Licensing Procedures.³⁷

³³ WTO member assigned to TRIPS can be viewed here http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (See Annexure 1) (Last visited on 26 May 2010)

³⁴ http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm (Last visited on 26 May 2010)

³⁵ It should be noted that the WTO with all of its agreements is not part of the UN

³⁶ http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm (Last visited on 26 May 2010)

³⁷ http://www.wto.org/english/docs_e/legal_e/23-lic_e.htm (Last visited on 26 May 2010)

The Agreement on Technical Barriers to trade seeks to ensure that technical negotiations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade. However, it recognises that countries have the right to establish protection at levels they consider appropriate, for example for human, animal or plant life, health or the environment, and should not be prevented from taking measures necessary to ensure those levels of protection are met. The agreement therefore encourages countries to use international standards where these are appropriate, but it does not require them to change their levels of protection as a result of standardisation.

Innovative features of the revised agreement are that it covers processing and production methods related to the characteristics of the product itself. The coverage of conformity assessment procedures is enlarged and the disciplines made more precise.

The Agreement on Import Licensing Procedures strengthens the disciplines on the users of import licensing systems and increases transparency and predictability. For example, the agreement requires parties to publish sufficient information for traders to know the basis on which licences are granted. It contains strengthened rules for the notification of the institution of import licensing procedures or changes therein. It offers guidance on the assessment of applications.

With respect to automatic licensing procedures, the agreement sets out criteria under which they are assumed not to have trade restrictive effects. With respect to non-automatic licensing procedures, their administrative burden for importers and exporters should be limited to what is essential for administering applicable measures. The revised agreement sets a maximum of sixty days for applications to be considered.

3.2 Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)

The TRIPS is an international agreement administered by the World Trade Organization (WTO) that sets down minimum standards for many forms of intellectual property regulation.³⁸ It forms Annexure 1C to the WTO Agreement.

³⁸ Note that although TRIPS requires member states to provide a minimum set of law to deal with IP it does not require inventors to use the system.

The TRIPS was concluded as part of the text of the Final Act of Uruguay Round negotiations (the Round was concluded on 15 December 1993 and the Final Act signed on 15 April 1994) and came into operation on 1 January 1995. On 16 May 2008 the WTO had 152 members.

One of the fundamental characteristics of the TRIPS Agreement is that it makes protection of intellectual property rights an integral part of the multilateral trading³⁹ system, as embodied in the WTO and it remains the most comprehensive international agreement on intellectual property to date.

The TRIPS Agreement is often described as one of the three 'pillars' of the WTO, the other two being trade in goods (the traditional domain of the GATT) and trade in services.

Specifically, the TRIPS contains requirements that the various nations' laws must meet⁴⁰ and in particular addresses:

- how basic principles of the trading system and other international intellectual property agreements should be applied.
- how to ensure adequate protection to intellectual property rights.
- how countries should enforce those rights adequately in their own territories.
- how to settle disputes on intellectual property between members of the WTO.
- special transitional arrangements during the period when the new system is being introduced.

The TRIPS requires member states to provide strong protection for intellectual property rights.

For example:

- Copyright terms must extend to fifty years after the death of the author, although films and photographs are only required to have fixed fifty year - and to be at least 25 year - terms respectively.⁴¹
- Copyright must be granted automatically and not based upon any 'formality', such as registrations or systems of renewal.

³⁹ Iowa Law Review, Iowa University January, 1991, 76 Iowa L. Rev. 273, "Protecting United States Intellectual Property Abroad: Toward a New Multilateralism" by Prof *Marshall A. Leaffer*

⁴⁰ Concession was given to developing countries and least developed countries for compliance in 2000 and 2001 respectively.

⁴¹ TRIPS Art. 7(2),(4)

- Patents must be granted in all 'fields of technology'. Although exceptions for certain public interests are allowed,⁴² these are typically inventions whose commercial exploitation needs to be prevented to protect human, animal or plant life or health,⁴³ diagnostic, therapeutic and surgical methods for treating humans or animals⁴⁴ and certain plant and animal inventions,⁴⁵ and must be enforceable for at least 20 years.⁴⁶
- Exceptions to the exclusive rights must be limited, provided that a normal exploitation of the work⁴⁷ and normal exploitation of the patent (Art 30) is not in conflict.
- Legitimate interests of third parties must be taken into account by patent rights.⁴⁸
- In each state, intellectual property laws may not offer any benefits to local citizens which are not available to citizens of other TRIP's signatories by the principles of national treatment (with certain limited exceptions⁴⁹).

Developed countries were granted a transition period of 1 year following the entry of the WTO Agreement, i.e. until 1 January 1996.

Developing countries (of which China was one) were allowed a further period of 4 years (i.e. to 1 January 2000) to apply the provisions of the agreement.

As in the GATT, the starting point of TRIPS is basic principles, i.e. national treatment (treating one's own nationals and foreigners equally), and most-favoured-nation treatment (MFN).⁵⁰

Prior to the TRIPS Agreement, developing countries had little incentive to create highly protective intellectual property right regimes. Rather, they focused on encouraging the free flow of information and on acquiring a technological base from which to grow.⁵¹

⁴² http://www.wto.org/english/docs_e/legal_e/27-trips_04c_e.htm (Last visited on 26 May 2010)

⁴³ TRIPS Article 27.2

⁴⁴ TRIPS Article 27.3a

⁴⁵ TRIPS Article 27.3b

⁴⁶ TRIPS Art 33

⁴⁷ TRIPS Art. 13

⁴⁸ TRIPS Art 30

⁴⁹ TRIPS Art. 3 and 5

⁵⁰ Under the WTO agreements, countries cannot normally discriminate between their trading partners. Grant someone a special favour (such as a lower customs duty rate for one of their products) and you have to do the same for all other WTO members.

⁵¹ PROSPECTS FOR PROGRESS: THE TRIPS AGREEMENT AND DEVELOPING COUNTRIES AFTER THE DOHA CONFERENCE, by L. Danielle Tully (the Solicitations and Symposium Editor of the Boston College International & Comparative Law Review) to be viewed here http://bc.edu/schools/law/lawreviews/meta-elements/journals/bcicl/26_1/06_TXT.htm#T18 (Last visited on 26 May 2010)

Low standards of patent protection in countries such as India and Brazil, for example, facilitated the development of industries, particularly in the pharmaceutical field. In addition, little global consensus existed on what constituted patentable subject matter or the rights that a patent should confer.⁵²

In 2001 developing countries, concerned⁵³ that developed countries were insisting on an overly narrow reading of the TRIPS, initiated a round of talks that resulted in the Doha Declaration⁵⁴ that addressed the concerns of the developing countries. There are however still concerns⁵⁵ that the implementation of the TRIPS in some of the developing countries will place an unnecessary burden on countries without the infrastructure and resources to restructure its national intellectual property laws for compliance. Through the co-operation agreement between WIPO and the WTO there has been considerable assistance to member states to meet their obligations.

Another aspect of the TRIPS Agreement that requires mentioning is that it includes the additional important principle that intellectual property protection should contribute to technical innovation and the transfer of technology. Both producers and users should benefit, and economic and social welfare should be enhanced.⁵⁶ Despite this fact, there are views that the ongoing attempts of the TRIPS Agreement to harmonise and strengthen the intellectual property protection regimes worldwide, is adversely affecting the technological activity in developing countries and is specifically being criticised by the alter-globalisation⁵⁷ movement. See Boston College International & Comparative Law Review whose views on the issue of technology acquisition and creation by developing countries remains largely unsupported by the TRIPS Agreement and the recent Ministerial Declarations.⁵⁸

⁵² *The Winners and the Losers: The Agreement on Trade-Related Aspects of Intellectual Property Rights and Its Effects on Developing Countries*, 23 House. J. Int'l L. 169, 195–97 (2000), Evelyn Su.

⁵³ Mainly on the view that the "TRIPS Agreement simultaneously narrows the developing countries' access to technology, discouraging the rapid diffusion of new technology needed for economic growth" see Ruth L. Gana, *Prospects for Developing Countries Under the TRIPS Agreement*, 29 Vand. J. Transnat'l L. 735, 743 (1996).

⁵⁴ A WTO statement that clarifies the scope of TRIPS, stating for example that TRIPS can and should be interpreted in light of the goal "to promote access to medicines for all."

⁵⁵ 23/24 June 2004 Conference – "TRIPS – ten years later" A conference commemorating the 10th anniversary of the conclusion of TRIPS - Conference held in Brussels on 23/24 June 2004 Presentation by Betty Mould-Iddrisu; Director Legal and Constitutional Affairs Division; Commonwealth Secretariat, London; http://ec.europa.eu/trade/issues/sectoral/intell_property/pr110604_en.htm (Last visited 26 May 2010)

⁵⁶ TRIPS, Section 5, Articles 27, 28 and 62

⁵⁷ The movement mainly opposes the way it believes that international institutions (such as the WTO, the IMF, and the World Bank) work towards First World economic interests.

⁵⁸ *Supra* Danielle Tully (the Solicitations and Symposium Editor of the Boston College International & Comparative Law Review) to be viewed here http://bc.edu/schools/law/lawreviews/meta-elements/journals/bcicl/26_1/06_TXT.htm (Last visited 26 May 2010)

Additionally there are views that TRIPS pays inadequate attention to the transfer of technology;⁵⁹ it sets high standards for globalisation of intellectual property protection with little or no attempt to build into those standards transfer of technology objectives. In those cases where transfer of technology obligations are to be found in international conventions, those obligations are framed in soft language⁶⁰ and surrounded by provisions obliging members to respect intellectual property rights.⁶¹

Having intellectual property laws is not enough. They must be enforced. This is covered in Part 3 of the TRIPS. The agreement states that governments should ensure that intellectual property rights can be enforced by law, and that the penalties for infringement are tough enough to deter further violations. The procedures must be fair and equitable, and not unnecessarily complicated or costly. They should not entail unreasonable time limits or unwarranted delays. People involved should be allowed to request a court to review an administrative decision or to appeal a lower court's ruling.

The agreement describes in some detail how enforcement should be handled, including rules for obtaining evidence, provisional measures, injunctions, damages and other penalties. It says courts should have the right, under certain conditions, to order the disposal or destruction of pirated or counterfeit goods. Willful trade mark counterfeiting or copyright piracy on a commercial scale should be criminal offences. Governments should ensure that owners of intellectual property rights can receive the assistance of customs authorities to prevent imports of counterfeit and pirated goods. The effect of the TRIPS as experienced by Asian Countries was studied by the Commission on Intellectual Property Rights⁶² in a series of papers. Of particular relevance is the study paper of Kumar⁶³ and Drahos.^{64,65}

⁵⁹ Study Paper, 2002, 1b Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries. London: Background paper to the Commission on Intellectual Property Rights by Kumar, Nagesh, to be viewed at (http://www.twinside.org.sg/title2/FTAs/Intellectual_Property/IP_and_Development/IPR_TechnologyandEconomicDevelopment-Nagesh_Kumar.pdf) (Last visited 26 May 2010)

⁶⁰ See TRIPS Agreement, Section 5

⁶¹ Commission of Intellectual Property Rights Study Paper 8: Developing Countries and International IP Standard-Setting. Author: Peter Drahos (http://www.iprcommission.org/graphic/documents/study_papers.htm) last visited 26 May 2010

⁶² <http://www.iprcommission.org/graphic/documents.htm> (The Commission was established by the World Health Assembly in 2003 to collect data and proposals from the different actors involved and produce an analysis of intellectual property rights, innovation, and public health, including the question of appropriate funding and incentive mechanisms for the creation of new medicines and other products against diseases that disproportionately affect developing countries)

⁶³ CIPRH - Study Paper 1b: Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries. Author: Nagesh Kumar

⁶⁴ CIPRH Study Paper 8: Developing Countries and International IP Standard-Setting. Author: Peter Drahos.

⁶⁵ Although the focus of Kumar and Drahos papers is on IP and health related issues, the context thereof in view of China as a developing country is relevant.

Kumar's research concluded that the East Asian countries will be affected adversely by the implementation of TRIPS, as it contains only modest concessions to the development needs of developing countries. Access to technology is becoming increasingly difficult for developing countries.

Kumar specifically highlighted 5 areas of impact, i.e. Local Technological Capability Building (the process of innovative activity in the manufacture of chemicals covered by patents); Industrialisation, Technology Transfers and Trade (more focus on arms length technology transfer transactions; importation of products from patent holders as opposed to local manufacture; pressure on smaller enterprises to merge with larger corporations); Prices of Medicines and Loss of Consumer Welfare (gains for patent owners and welfare losses for consumers); Income Transfers from Developing Countries (due to patent volumes from developing countries the strengthening and harmonisation of intellectual property regimes will necessarily lead to a substantial increase in flow of royalties and licence fees from developing countries to developed countries), and Impact on Global Technological Activity and Availability of Drugs (the impact of TRIPS may well be the stifling of follow-on innovation and slowing down the pace of technological development) as reverse engineering is prohibited).

In view of the cultural context on which this work focuses, it is worth mentioning the following. Although the objective of establishing the WTO was to liberalise world trade and to harmonise trade policies to ensure fair access to world markets while engaging in harmonisation of national trade policies, the world trading system has simultaneously promoted cultural harmonisation. It is clear that the TRIPS has gone beyond dealing with 'trade related' intellectual property issues. As a result of the TRIPS, a state initially pursues a variety of goals in addition to economic development, such as cultural autonomy, but the compelling rule-based international trade regime limits the ability of the nation to structure its own domestic laws that often reflect the cultural values of that nation.⁶⁶ In this context, we cannot ignore the fact that in a multicultural society it is inappropriate and unwise to strive for a unique cultural environment leading to intellectual property harmonisation.

Imposing a superseding international law in the name of trade harmonisation tends to undermine the social values and cultural diversities reflected in domestic laws.

⁶⁶ The WTO Legalistic Approach and East Asia: From the Legal Culture Perspective, 1 Asian-Pac. L. & Pol'y J. 1, 6 (2000), Shin-yi Peng.

3.3 The World Intellectual Property Organization (WIPO)

WIPO⁶⁷ was established by a convention of 14 July 1967, and was enforced in 1970. It has been a specialised agency of the United Nations since 1974 and administers a number of international unions or treaties in the area of intellectual property, such as the Paris and Berne Conventions.

The objectives of WIPO are to:

- (i) Promote the protection of intellectual property throughout the world through co-operation among States and, where appropriate, in collaboration with any other international organisation.
- (ii) Ensure administrative co-operation among the intellectual property unions created by the Paris and Berne Conventions and sub-treaties concluded by the members of the Paris Union.

The functions of WIPO as per its constitution, are to:

- (i) Promote the development of measures designed to facilitate the efficient protection of intellectual property throughout the world and to harmonise national legislation in this field.
- (ii) Perform the administrative tasks of the Paris Union, the Special Unions established in relation with that Union, and the Berne Union.
- (iii) Assume, or participate in, the administration of any other international agreement designed to promote the protection of intellectual property.
- (iv) Encourage the conclusion of international agreements designed to promote the protection of intellectual property.
- (v) Offer its co-operation to States requesting legal–technical assistance in the field of intellectual property.
- (vi) Assemble and disseminate information concerning the protection of intellectual property, carry out and promote studies in this field, and publish the results of such studies.
- (vii) Maintain services facilitating the international protection of intellectual property and, where appropriate, provide for registration in this field and the publication of the data concerning the registrations.

⁶⁷ Convention Establishing the World Intellectual Property Organization Signed at Stockholm on July 14, 1967 and as amended on September 28, 1979 Article 3 and 4

To facilitate the implementation of the TRIPS Agreement; an agreement on co-operation⁶⁸ between WIPO and the WTO came into force on 1 January 1996. The agreement provides co-operation in 3 main areas:

- notification of, access to and translation of national laws and regulations
- implementation of procedures for the protection of national emblems
- technical co-operation.

3.4 Paris Convention

The Paris Convention⁶⁹ is administered by WIPO. This is an important and one of the first intellectual property treaties. On account of this treaty, intellectual property systems including patents, of any contracting state are accessible to the nationals of other states party to the Convention. The Convention now has 172⁷⁰ contracting member countries.

The '*Convention priority right*', also called '*Paris Convention priority right*' or '*Union priority right*', is also established by this treaty. It provides that an applicant from one contracting State shall be able to use its first filing date (in one of the contracting States) as the effective filing date in another contracting State, provided that he files another application within 6 (for industrial designs and trade marks) or twelve months (for patents and utility models) from the first filing.

3.5 European Patent Convention (EPC)

The Convention on the Grant of European Patents of 5 October 1973, commonly known as the European Patent Convention (EPC),⁷¹ is a multilateral treaty instituting the European Patent Organisation and providing an autonomous legal system according to which European patents are granted.⁷²

The revised version of the EPC 1973 (EPC 2000) came into force on 13 December 2007.⁷³ It features more than 100 amendments and deletions.

⁶⁸ WTO-WIPO cooperation agreement (Agreement Between the World Intellectual Property Organization and the World Trade Organization) Geneva on 22 December 1995. http://www.wto.org/english/tratop_e/TRIPS_e/wtowip_e.htm (Last visited on 26 May 2010)

⁶⁹ Paris Convention for the Protection of Industrial Property, signed in Paris, France, on March 20, 1883

⁷⁰ Member list can be viewed at <http://www.wipo.int/treaties/en/ip/paris/index.html> (Last visited on 26 May 2010)

⁷¹ European Patent Convention on the Grant of European Patents of 5 October 1973 to be viewed at <http://www.epo.org/patents/law/legal-texts/html/epc/1973/e/ma1.html> (last visited 26 May 2010)

⁷² Article 2(1) EPC

⁷³ See Chapter II

These changes bring the EPC more in line with international treaties like TRIPS, clarify some points of law in the light of certain decisions by the EPO Boards of Appeal, and tend to streamline the workload of the EPO. Some changes are merely administrative. Others will affect the patentee/applicant's normal manner of conduct.⁷⁴ The provisions of the revised Convention apply to all pending applications filed before 13 December 2007 and granted patents wherever possible unless the transitional⁷⁵ provisions⁷⁶ provide for the applicability of the EPC of 1973.

The application of the EPC is further discussed in Chapter II. It is to be noted, as will be explained in Chapter II, that although the identical patent is granted in each of the EPC member states, it remains a national patent, interpreted in the national courts, and is not a 'regional' patent that is regionally enforced. A patent applicant identifies the countries in which the patent is to be awarded and pays the appropriate fees (registration and renewal fees).

3.6 London Agreement

On 1 May 2008 the London Agreement⁷⁷ came into force. This agreement is a pan-European treaty that effectively forced member states to multi-lateral agreement to adapt their laws for the benefit of free trade. The aim of this agreement is to significantly reduce translation costs of patents granted under the European Patent Convention for European patents.

The London Agreement applies to European patents in respect of which the mention of grant is published in the European Patent Bulletin after the Agreement enters into force for the state concerned.⁷⁸ The new translation regime will thus be applicable in those states which have ratified or acceded to the London Agreement and to all European patents in respect of which the mention of grant is published in the European Patent Bulletin on or after 1 May 2008.

⁷⁴ "EPC2000, an overview of the most significant procedural changes by MT Connor", China Intellectual Property 9 10/2008, Intellectual Property International pp 98-100

⁷⁵ Details can be viewed in the "Notice from the European Patent Office dated 20 September 2007 on implementation of the transitional provisions of the EPC 2000 applicable during the transition from the EPC 1973" - available at <http://www.epo.org/patents/law/legal-texts/InformationEPO/archiveinfo/20070912.html> (Last visited 26 May 2010)

⁷⁶ Part XI, Articles 159 to 163.

⁷⁷ Formally known as the Agreement on the application of Article 65 of the Convention on the Grant of European Patent and can be downloaded from <http://www.epo.org/patents/law/legal-texts/london-agreement.html> (Last visited 26 May 2010)

⁷⁸ Article 9 – London Agreement

The London Agreement distinguishes between states having an official language in common with one of the official languages of the EPO (English, French and German) and states having no official language in common with one of the official languages of the EPO.

The entry of the Agreement into force marked a true breakthrough in improving the European patent system. Patent holders are spared the high costs relating to the translation of European patents and the particular advantages include:

- Significant savings in translation costs
- No publication fees for translations
- Reduced patent attorney fees
- An inclusive solution - 3 languages instead of single-language solutions like 'English only'.

It is expected that more states will join the Agreement during the next years, and the overall picture which will emerge is a post-grant language regime where the claims are always available in the national language of the states where the European patent is registered, while the description is generally available in English only.

CHAPTER II - AN OVERVIEW OF INTELLECTUAL PROPERTY RIGHTS (FOCUS ON PATENTING) IN CHINA, JAPAN, THE EUROPEAN UNION AND THE USA

For the purpose of this study an overview of the national and regional intellectual property legislation of the EU, China, Japan and USA have been included. This study only focuses on technology patent specific intellectual property and does not extend to trade marks; domain and copyright has been excluded.

1 Summary and overview of intellectual property protection in China, Japan, Europe and USA

The intellectual property protection and enforcement mechanisms for China, Japan, Europe and USA do have certain similarities, but also have some distinct differences that are of importance to a business wishing to use its intellectual property strategy to expand its business interest, markets and technology. Of particular importance for intellectual property exploitation in the different jurisdictions are the exceptions to patenting, the requirements for patenting and enforcement options that are, in some instances, substantially different, as will be discussed below. This is complicated as most countries are members of the important international treaties that provide for a minimum standard of IP protection.

In addition to the known intellectual property laws, there are a vast range of other forms of legislation in each of these jurisdictions that complicate the intellectual property playing field. Businesses need to have a clear understanding and engage appropriate foreign counsel to advise and assist with understanding these complexities and implications. The intention of this chapter is not to discuss all the forms of legislation, but to alert the reader to some of the important aspects of relevance to the formulation of an IP strategy.

As it is often the strategy of companies to have broad intellectual property approaches covering countries where it does not necessarily intend to exploit the patents, care needs to be taken because of compulsory licence provisions (for example). Further caution is needed in China and Japan for technology licensing into, or out of these countries.

The value of patents as competitive and intelligence tools becomes most evident in the day-to-day transaction of business, i.e. whether a company is trying to block a competitor's product development plan, gain entry into a hotly contested new market, find the most attractive acquisition opportunity, or reduce the risks involved in a high-stakes merger.

Patents can be potent artillery and quite possibly the greatest source of competitive intelligence on earth.⁷⁹

Developing a robust international patent enforcement strategy is critical in today's global economy. Inclusion of Japan and China in that strategy is important given the large volume of patent applications filed in Japan annually,⁸⁰ the increase in Chinese applications,^{81 82} and the several positive changes made to Japan's⁸³ and China's^{84 85} patent enforcement system and their importance in global manufacturing.

To maximise the likelihood of successfully enforcing its patent rights in Japan and China however, any European or US business should become familiar with the similarities and differences between the Japanese and/or Chinese systems as opposed to the US and European systems, as it develops an effective approach to its international strategy.

⁷⁹ "Rembrandts in the Attic: Unlocking the Hidden Value of Patents ", (Harvard Business School Press, 2000), Rivette and Kline, an abstract of the book can be viewed at <http://hbr.org/products/8990/8990p4.pdf> (Last visited on 17 June 2010)

⁸⁰ Patent filings in Japan started to accelerate from the late 1950s and by 1973, the patent office of Japan was the largest office in terms of number of applications, see WIPO World Intellectual Property Indicators Report Statistics for 2009 available at http://www.wipo.int/export/sites/www/ipstats/en/statistics/patents/pdf/wipo_pub_941.pdf (Last visited on 15 June 2010)

⁸¹ SIPO received more than 300 000 applications during first half of 2007 (a 30% increase since 2006) – Source: "Building and enforcing intellectual property value 2008, IAM Magazine "IP Value 2008" pp198 and a total of 935598 applications by January 2010 as shown on SIPO's website to be viewed at <http://www.chinaipr.gov.cn/policy/statistics/624178.html> (Last visited on 1 June 2010)

⁸² Chemical Week Magazine, Issue of 18 January, 2006, p23 : "Intellectual Asset management, Protecting IP in China

⁸³ Patent Enforcement in Japan as Part of a Global Litigation Strategy By Jason S. Shull, Yuko Hara, and Taku Oomori from *Intellectual Property Litigation*, Volume 19, Number 4, Summer 2008 to be found here <http://www.bannerwitcoff.com/articles/Intellectual%20Property%20Litigation%206.08%20JShull%20article.pdf> (Last visited on 15 July 2010)

⁸⁴ EPO conference -Growing Business with IP Conference, Milan, Italy, July 2008, "Dragon Awakes", Ling Ho to be found here http://academy.epo.org/e_learning/dragon_wakes/player.html (Last visited on 14 June 2010) (author personally attended conference)

⁸⁵ China reported handling 1517 patent dispute cases since 2003, and claimed that 1237 were resolved. It also reported 1873 settled cases for "passing off" patents and 164 settled cases for counterfeit patents. Source SIPO, Report in the protection of Intellectual Property Rights in China 2003 as cited in "The Viability of stimulating technology oriented entrepreneurial Activity in China, Taiwan, Japan, and South Korea: How regulations and culture encourage the creation, development and exploitation of intellectual property by ML Goldberg; See also *Law360, New York (October 21, 2009)* "China — Home And Away: The Next IP Powerhouse", By Dr. Qian Huang (pictured) and Paul Devinsky, McDermott Will & Emery LLP to be viewed at http://www.mwe.com/info/pubs/law360_102109.pdf (Last visited on 7 June 2010) wherein it is reported that in 2007, there were more than 4,000 patent infringement suits brought in China; 4 percent by a foreign company. A study of reported decisions of the IP cases in China suggests that when an IP owner appears before a Chinese court, irrespective of whether the plaintiff is Chinese or foreign, it has a 75 percent chance of receiving a favourable decision.

Although harmonisation of national patent laws has been seen as an important improvement and regarded as inevitable due to the internationalising business environment,⁸⁶ treaties such as the Paris convention, PCT, the EPC and the WTO governed TRIPS have to some extent, had their role in setting a level playing field. Nevertheless, national legislation has maintained some divergent characteristics. For example companies already in the market and those considering entering the greater China market, should be aware that intellectual property protection in those markets has a number of fundamental differences with protection of intellectual property rights in the US and/or Europe. One such difference is the patentee's right to exclude others from practicing a patented invention. Chinese patent law approaches compulsory license laws differently from the US or Europe, which tends to focus on patent misuse and antitrust laws.

2 The application of the intellectual property regime in view of TRIPS

Intellectual property laws create exclusive rights that provide incentives for innovation by establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression.⁸⁷

National intellectual property laws, however, need to incorporate the provisions of the TRIPS Agreement.⁸⁸ As stated in Chapter I, the WTO's TRIPS Agreement is an attempt to narrow the gaps in the way these rights are protected around the world and to bring them under common international rules. It establishes minimum levels of protection that each government has to give to the intellectual property of fellow WTO members. In doing so, it strikes a balance between the long-term benefits and possible short-term costs to society.

Society benefits in the long-term when intellectual property protection encourages creation and invention, especially when the period of protection expires and the creations and inventions enter the public domain. It is thus an essential component in the development of an IP strategy to be aware of the efficiency and effectiveness in which a jurisdiction would protect intellectual property rights.

⁸⁶ Research Report to NCIP (National Centre for Industrial Property Information and Training), Secondary markets for IP – US and Japan Comparison, March 31, 2006, Henry Chesbrough

⁸⁷ U.S. Department of Justice and Federal Trade Commission, Anti-trust Guidelines for the Licensing of Intellectual Property, § 1 (1995), reprinted in 4 Trade Reg. Rep. (CCH) 13,132, available at <http://www.usdoj.gov/atr/public/guidelines/0558.pdf> (last visited on 15 Oct 2009)

⁸⁸ Article 63.2 of the TRIPS Agreement requires Members to notify the laws and regulations made effective by that Member pertaining to the subject-matter of the Agreement to the Council for TRIPS in order to assist the Council in its review of the operation of the Agreement.

A necessary but insufficient guideline, would be the jurisdiction's compliance with TRIPS requirements and other international conventions and treaties.

3 Comparative analyses of TRIPS compliance of China, Japan, Europe and USA

3.1 China

China is a developing country with a very short history of laws for intellectual property rights. It is unbelievable, in some perspectives, that China is able to modernise its intellectual property right laws within 2 decades.

One of the reasons is that China conducted its intellectual property right legislations under the existing international standards. China became the Member of the WIPO in June 1980. China subsequently became a member of the Paris Convention for the Protection of Industrial Property (the 'Paris Convention') in 1985. The Patent Law was amended in 1992 and China became a signatory to Berne Convention (1992) and subsequently the Patent Cooperation Treaty (PCT) as of 1994. The Patent Law was amended most recently in 2009 in an effort to bring it in line with the relevant provisions of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).⁸⁹ China has also ratified the Madrid Agreement Concerning the International Registration of Marks (1989).

In a further attempt to increase intellectual property right awareness, China amended its Scientific and Technological Progress Law⁹⁰ that has applied from 1 July 2008. This law deals with innovation in the country and lead to the publication of the long-awaited National IP Strategy.

The National IP Strategy is designed to raise IP awareness throughout the country, encourage so-called joined-up government by connecting existing IP policies in different departments and take a macro-economic look at intellectual property right protection. China's National IP Strategy was completed after various rounds of discussions in June 2008. There are 3 five-year goals and 3 main actions⁹¹.

⁸⁹ East Midlands – China Business Bureau website at <http://www.eastmids-china.co.uk/intellectualpropertyrightsinchin1.html> (last visited at 27 May 2010)

⁹⁰ Managing IP Magazine, "China gets ready for National IP Strategy" - Peter Ollier, Hong Kong to be found at <http://www.managingip.com/Article/1853384/China-gets-ready-for-National-IP-Strategy> (Last visited on 8 May 2008)

⁹¹ *Supra* Ling Ho

The 5-year goals are to increase annual numbers of patent filings, improvement of intellectual property right protection and to increase awareness of intellectual property rights.

The main activities include creation and commercialisation of intellectual property rights in China, judicial punishment and effective measures and preventing intellectual property right abuses and maintaining fair market competition.

The new Patent Law and the National IP Strategy of China is aimed at protecting the interest of the Chinese nationals, i.e. the IP policies aim at promoting innovation through support to Chinese enterprises in building their Research and Development capacities in order to develop and patent core technologies, to assimilate existing technologies while introducing advanced technologies from abroad and to improve the protection of IP rights as a means of encouraging investment in – and the rewards from – innovation.⁹²

The IP Strategy in particular aims to boost the number of patents held by Chinese citizens over the next 5 years, as the Revised Law in particular encourages Chinese entities and individuals to apply for patents abroad (in that the requirement that a Chinese individual or entity who made an invention in China must first apply for a patent in China, has been removed and a Chinese individual or entity who made an invention in China may submit a foreign application prior to applying for a Chinese patent).

3.2 Japan

The Japanese intellectual property regime is well developed and provides an integrated system designed to protect the intellectual property rights⁹³ of local as well as foreign jurisdiction proprietors.

Japan is a signatory to most of the international treaties⁹⁴ concerning intellectual property rights.

⁹² See WIPO Magazine, July 2007 Issue, "National Strategies and Policies for Innovation: A View from China and India" by Mr. Liu Jian, Division Director, International Cooperation Department, State Intellectual Property Office of the Peoples' Republic of China (SIPO) available at http://www.wipo.int/wipo_magazine/en/2007/04/article_0007.html (Last visited on 21 July 2010)

⁹³ These include TRIPS 1994, Paris Convention for the Protection of Industrial Property 1883, Patent Cooperation Treaty 1970, Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure 1997, International Convention for the Protection of New Varieties of Plants 1961, Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks 1991, Trade mark Law Treaty 1994, Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks 1989, Berne Convention for the Protection of Literary and Artistic Works (Paris Act) 1971, Universal Copyright Convention 1971, Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations 1961, Geneva Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of Their Phonograms 1971, WIPO Copyright Treaty 1996, WIPO Performance and Phonograms Treaty 1996, Convention Establishing the World Intellectual Property Organization 1967. See Japan Patent Office Website, http://www.jpo.go.jp/cgi/linke.cgi?url=/seido_e/s_gaiyou_e/4houe.htm (Last visited on 7 June 2010)

Even though the system was developed and effective, Japan's intellectual property system has undergone a transformation since early 2002.⁹⁵ A brief chronology of the transformation reforms is as follows:⁹⁶

- July 2002 - Intellectual Property Strategic Outline ('Outline')
- December 2002 – Intellectual Property Basic Act⁹⁷ (Act No. 122 of 2002) ('Basic Law')
- July 2003 - Strategic Programme for the Creation, Protection and Exploitation of Intellectual Property ('Strategic Programme 2003')
- May 2004 - Strategic Programme for the Creation, Protection and Exploitation of Intellectual Property 2004 ('Strategic Programme 2004')
- June 2005 - Strategic Programme for the Creation, Protection
- Exploitation of Intellectual Property 2005 ('Strategic Programme 2005')
- Patent Act (Act No. 121 of 1959) revised 2006 and 2008.

The strategic Outline sets out fifty-five key concepts that need to be implemented or developed. The Basic Law sets out a number of objectives and identifies a number of Ministries and entities that are to take responsibility for implementing those objectives. One such body was the IP Strategy Headquarters. In May 2004 the IP Strategy Headquarters published the Strategic Programme 2004 consisting of 400 items, which is a revised and more detailed version of the Strategic Programme 2003. The updated version of the Strategic Programme 2004 was published in June 2005⁹⁸ and thereafter annually, with the last update made available on 24 June 2009.⁹⁹

Key aspects concerning the transformation include, among other things:

- improving efficiency of the procedures at the Japan Patent Office
- strengthening the systems for dispute resolution
- promoting the international protection of, and co-operation on, IP
- restructuring the environment for managing IP at university level

⁹⁴ See WTO website on member information from Japan to be viewed at http://www.wto.org/english/thewto_e/countries_e/japan_e.htm (Last visited on 28 May 2010)

⁹⁵ Prime Minister Koizumi declared that Japan should be forged as an IP nation in 2002

⁹⁶ Lovells IP Features Report "Intellectual Property in Japan", 2005, to be found here

<http://www.lovells.com/NR/rdonlyres/8BD49D42-303D-4362-B1D8-0D6F6E64DA6B/2860/22144Japantransformsitsintellectualpropertysystem.pdf> (Last visited on August 2007) and also see http://www.ipr.go.jp/e_material/ipsj.pdf (Last visited on 31 May 2010)

⁹⁷ Non-official English translation to be found at <http://www.cas.go.jp/jp/seisaku/hourei/data/ipba.pdf> (Last visited 10 June 2010)

⁹⁸ The preliminary translation was made available on *Preliminary Translation on September 19th, 2003* and can be viewed at http://www.kantei.go.jp/foreign/policy/titeki/kettei/030708f_e.html (Last visited on 31 May 2010)

⁹⁹ Different versions of the IP Strategic programme can be viewed on the Japan Cabinet Secretariat, Intellectual Property Strategy Headquarters website (English Materials) at http://www.ipr.go.jp/e_materials.html (Last visited on 31 May 2010)

- encouraging anti-counterfeiting activities throughout Asia and implementing stronger border control in Japan
- expanding the merchandising and contents business (for example cartoons, games software and films)
- establishing specialist IP courts.

The success of the Strategic Programme will depend on how focused and realistic the proposed activities and reforms are and the commitment of the various ministries and business which will play a key role. A number of IP related laws have already been amended to comply with the Strategic Programme including customs tariff law, plant variety law, civil litigation law, patent law, competition law and the copyright law.

The Japan Patent Office (JPO) established the Policy Committee on Innovation and Intellectual Property (PCIIP) on 18 December 2007. The PCIIP has discussed the public policy measures concerning intellectual property that should be taken in the future to construct a new intellectual property system which can effectively adapt to changes such as 'globalisation' and the 'upgrading of technology' and which promotes innovation. The discussion in the PCIIP was primarily focused on 3 points, i.e. realisation of a sustainable global patent system; reducing the amount of uncertainty in the patent system - enhancing patent quality and the development of an infrastructure for the promotion of innovation.

In June 2009 the most recent intellectual property policy for pro-innovation was published in English. The draft policy recommendations are:¹⁰⁰

- promoting better patent specification drafting
- strengthening the intellectual property strategy for promoting innovation
- strengthening global intellectual property strategy
- ensuring the stability and predictability of intellectual property
- establishment of intellectual property systems to meet users needs.

¹⁰⁰ Draft Policy recommendations of "Policy Committee on Innovation and Intellectual Property", Provisional English Version, June 2009, Japan Patent Office to be found at http://www.kantei.go.jp/jp/singi/titeki2/keikaku2009_e.pdf (Last visited on 31 May 2010)

3.3 Europe

The European Union (EU) is one of the leaders in the world economy and international trade, with a large and sophisticated (theoretically) single market. Together with being a key role player in world economic affairs, the EU is one of the major players in forging the international intellectual property scene. The EU has a long tradition of negotiating trade agreements, many of which include IP provisions.

The EU has been a founding member of WTO and acceded to the treaties of WIPO on March 2000.¹⁰¹ It joined the WTO on 1 January 1995 and is one of the key players. All its member states are separately members of the WIPO and WTO treaties. The EU has a common trade policy, where the European Commission negotiates on behalf of the European Union's 27 Member States. As such, the EU is one of the driving forces behind the current round of multilateral trade negotiations in the WTO: the Doha Development Agenda (DDA). The DDA comprises both further market opening and additional rule making, underpinned by commitments to take measures necessary to integrate developing countries into the world trading system, notably by strengthening assistance to build capacity. The main objective of the New Round is to put development at the heart of the world trade system in a way that will help them combat poverty.¹⁰²

The EU shares common interest and collaborates with many countries on IP issues, including (for the purpose of this thesis) Japan, the USA and China.

In addition to these, the European Community and its member states (EU) represented by the European Commission, attempted to conclude comprehensive Economic Partnership Agreements (EPAs) with the seventy-six member African, Caribbean and Pacific (ACP) group of countries.

Nevertheless, there are significant differences between the patent laws implemented in the EU (in the individual states and through the European Patent Convention) and those of the USA and other countries. For example, business methods and surgical procedures are not patentable (as such) in Europe.

¹⁰¹ Summaries of EU Legislation, Accession to the WIPO Treaties to be viewed at <http://europa.eu/scadplus/leg/en/lvb/l26054.htm> (Last visited 26 May 2010)

¹⁰² European Commission Trade website at http://ec.europa.eu/trade/issues/sectoral/intell_property/index_en.htm (Last visited on 26 May 2010)

3.4 USA

The USA has been a member of WTO and TRIPS since January 1995. The United States Patent and Trade mark Office (USPTO) developed and implemented many training programmes to help those countries in need with the implementation of the TRIPS provisions. Other US agencies, including the US Trade representative, are continuously in discussions and development programmes with other countries, including the EU, China and Japan to address trade related issues and intellectual property protection mechanisms.

4 Comparative analyses of patent protection in China, Japan, Europe and the USA

4.1 Scope and forms of protection

China, Japan, Europe and the USA all offer the standard type of statutory intellectual property rights, i.e. patents, design and/or utility patents, patents, trade marks, copyright and technology transfer.¹⁰³ The protection routes and processes differ, as do the means for enforcement and invalidation proceedings. There are some differences in scope and protection options and means in these jurisdictions for protection of non-statutory intellectual property rights.

A recent development in the scope of patent protection and of quite significant importance to a business strategy, is the so-called Patent Prosecution Highway (PPH).

The PPH programme enables an applicant whose claims have been determined to be patentable/allowable in the Office of First Filing (OFF) to have the corresponding application filed in the Office of Second Filing (OSF) advanced out of turn for examination, while at the same time allowing the OSF to exploit the work results of the OFF.¹⁰⁴ As such the initiative reduces examination workload and improves patent quality. The USPTO and the European Patent Office (EPO) announced a trial period in September 2008 for twelve months¹⁰⁵ and have extended the trial period for a further twelve months in Sept 2009.¹⁰⁶

¹⁰³ Intellectual Property Regulations (Chapter 37 of the Code of Federal Regulations (C.F.R.)) ¹⁰³ contains regulations concerning patents, trade marks, and copyrights that can be found at <http://www.thecre.com/fedlaw/legal23/37cfr.htm> also see <http://www.access.gpo.gov/cgi-bin/cfrassemble.cgi?title=199937> (Last visited on 1 June 2010)

¹⁰⁴ See Wikipedia definition to be viewed at http://en.wikipedia.org/wiki/Patent_Prosecution_Highway#cite_note-trilateral-0 (Last visited on 31 May 2010)

¹⁰⁵ USPTO web site, *USPTO and EPO to Pilot Patent Prosecution Highway*, Press release, #08-18, April 28, 2008, to be viewed on <http://www.uspto.gov/news/pr/2008/08-18.jsp> (Last visited on 31 May 2010).

¹⁰⁶ See the EPO On-line website at <http://www.epo.org/search.html?uquery=PPH&Go=Go> (Last visited on 31 May 2010)

The JPO and the USPTO has commenced the fully implemented Patent Prosecution Highway programme on 4 January 2008.

Both offices commenced the PPH programme using PCT international work products (Written Opinion (WO) and International Preliminary Examination Report (IPER)) (PCT-PPH) on a pilot basis on 29 January 2010.¹⁰⁷ The PCT-PPH pilot programme will run for a period of 2 years ending on 28 January 2012. The trial period may be extended if necessary to adequately assess the feasibility of the PCT-PPH programme. The Trilateral Offices will evaluate the results of the pilot programme to determine whether and how the programme should be fully implemented after the trial period. The offices may also terminate the PCT-PPH pilot programme early if the volume of participation exceeds a manageable level, or for any other reason.¹⁰⁸ Eleven countries are part of the PPH programme, including the USA, Japan, South Korea, Great Britain, Germany, Denmark, Finland, Russia, Austria, Singapore, Hungary, Canada and the most recent member, China.¹⁰⁹

It is anticipated that an increasing number of countries would join the PPH programmes. As the cost of obtaining a patent overseas is quite high and most independent inventors, as well as many truly small businesses, are simply unable to afford an international patent strategy, the PPH programme will benefit larger organisations by expanding on their international patent portfolios and it may enable even small businesses and inventors to expand on their international patent portfolios.

4.1.1 China

4.1.1.1 Scope

As a result of major changes over approximately the last sixteen years, China now has viable intellectual property laws in place. The intellectual property laws are subject to the civil laws in China.¹¹⁰ Any applicant applying for statutory intellectual property must register it with the appropriate Chinese agencies and authorities for those rights to be enforceable in China.

¹⁰⁷ See the JPO on http://www.jpo.go.jp/torikumi_e/t_torikumi_e/pph_pct/pct_e.htm (Last visited on 31 May 2010)

¹⁰⁸ See the EPO On-line website at <http://www.epo.org/patents/law/legal-texts/journal/informationEPO/archive/20100125b.html> (Last visited on 1 June 2010)

¹⁰⁹ See "IP Watchdog" website news flash "USPTO Signs PPH Deal With China; USPTO Eliminates PPH Fee on <http://www.ipwatchdog.com/2010/05/20/uspto-pph-china/id=10623/> (Last visited on 1 June 2010)

¹¹⁰ Melbourne Law School Asian Law Centre, Zhang, Naigen (1997). Intellectual Property Law in China: Basic Policy and New Developments, In *Annual Survey of International and Comparative Law*, 4, p. 1. to be viewed at <http://alc.law.unimelb.edu.au/bibliography/browse.asp?k=Intellectual+Property+Law+in+China%3A+Basic+Policy+and+New+Developments&j=AND> (Last visited on 1 June 2010)

The main intellectual property laws are the Patent Law (1985, amended 1993, 2000 and 2008), the Trade mark Law (1983, amended 1993 and 2001), the Copyright Law (1991 amended in 2001 and 2010) and the Law of the PRC against Unfair Competition ('Unfair Competition Law')¹¹¹ (1993). A brief overview of certain other rights is provided in Annexure 2.

China's first Patent Law was enacted in 1984 and has been amended 3 times to extend the scope of protection, with the most recent amendment implemented on 1 October 2009.¹¹² The Implementing Rules for the New Act were promulgated on 9 January 2010 and came into effect as of 1 February 2010 (the 'Revised Law'). The Implementing Rules provide further interpretation of the Revised Law and make its implementation more solid. In comparison with the old provisions, the Implementing Rules are more feasible, reasonable and in line with international practice. Unfortunately the Implementing Rules leave a number of grey areas. Hopes for a set of more pro-patentee friendly rules are still unmet.

The following main changes were made:¹¹³

- **Foreign filings:** China will now accept first foreign filings by Chinese companies or individual inventors who 'complete' an invention in China. This will permit Chinese applicants to file in the USA for example, as a 'first filing' and thus take advantage of the patent term advantages in China of having a priority date 1 year earlier than the filing date for patent term determining purposes. Previously if the inventor or applicant was a Chinese citizen, the first application had to be filed in China and any foreign patent applications by Chinese companies or inventors required the State Intellectual Property Office (SIPO) approval.

¹¹¹Chinese Patent Office website http://www.sipo.gov.cn/sipo_English/flfg/xgflfg/t20020420_34756.htm (Last visited on 5 June 2010)

¹¹²China Law & Practise On-line magazine, "Guarding your IP and enforcing your rights", IP specialists from Zhong Lun Law Firm discuss various approaches of intellectual property rights protection in China, and outline the relevant government agencies involved and their roles, Issue: May 2010 to be viewed at <http://www.chinalawandpractice.com/Article/2564581/Channel/12591/New-China-legislation-this-week-May-18-2010.html?ArticleID=2564581&Type=Channel&ID=12591&RuleUsed=PageArticle> (Last visited on 5 June 2010)

¹¹³ China Law & Practise On-line magazine, "Reshaping the patents game - New implementing rules for the PRC Patent Law will have a significant impact on foreign companies' China IP strategies. Issues relating to security review procedures and first-filing have been clarified, but penalties are tougher and uncertainties remain abundant, Issue: March 2010 to be viewed at <http://www.chinalawandpractice.com/Article/2443556/Channel/9937/Reshaping-the-patents-game.html> (Last visited on 5 June 2010)

However, should an applicant (Chinese or not) wish to take advantage of this new option for an invention completed in China, the application is subject to a security check and the applicant needs to apply for 'confidential examination' with the SIPO prior to the foreign filing.

- As with foreign filing licences in the USA, non-compliance with this provision can result in severe penalties for the corresponding Chinese application (rejection in China, unenforceability in the USA). When a foreign filing is denied, it is not clear in the Revised Law or new Implementing Rules whether the applicant is given a chance to request reconsideration. The answer is probably affirmative under general legal practice in China.¹¹⁴ When planning foreign filing first under the Revised Law and new Implementing Rules, the local inhabitant needs to calculate the possible delay due to any security review and bear in mind that the description of the technical solutions must be in Chinese (except for those filed under the PCT).
- **Novelty requirements:** The scope of novelty-destroying activity has been expanded. Previously, an invention needed to be publicly known or used in China (or be disclosed in a patent or printed publication abroad or in China) to be prior art (similar in effect to 35 U.S.C. § 102(a)). The importance of this change is that public activities in other countries can be the source of novelty-destroying prior art for Chinese applications.
- For inventors or applicants, the 6-month grace period under the old law is still available for certain acts (such as a qualified international trade show) as 'exceptions to novelty bar'. The new Article 30 of the Implementing Rules clarifies that international exhibitions recognised by the Chinese government are those that are registered at, or recognised by the BIE (Bureau of International Expositions) pursuant to the Convention Relating to International Exhibitions.

¹¹⁴ China Law & Practise On-line magazine, "New Patent Law implementing rules to have a deep impact", CLP asked a range of lawyers from international firms to submit their comments and opinions on the revised Implementing Rules for the updated PRC Patent Law. Here is a selection of their comments, Issue: March 2010 to be viewed here <http://www.chinalawandpractice.com/Article/2443562/Channel/9937/New-Patent-Law-implementing-rules-to-have-a-deep-impact.html> (Last visited on 5 June 2010)

- **Identification of genetic resources:**¹¹⁵ The Revised Law has introduced for the first time a compliance requirement and a disclosure obligation for the application of patents based on genetic resources. Genetic resources must be identified in a patent specification if ‘completing’ an invention requires acquisition and use of genetic resources (Article 26). Both the immediate (‘direct’) and original source must be identified, or an explanation provided why the genetic resource is not identified. Patents can be rejected if either the acquisition or use of the genetic resource violates any law or regulation.

The Revised Law is silent on which laws and regulations are relevant to genetic resources, but fortunately a list of the ‘relevant laws and administrative regulations’ is provided in the Implementing Rules. The Revised does not define ‘genetic resources’ or ‘an invention relying on genetic resources’. The Implementing Rules further explain that using the genetic functions of the genetic resources means ‘isolating, analysing and treating the functional units of heredity to complete the invention-creation and realise the value of the genetic resources’. The Implementing Rules provide detailed interpretations for the terms ‘genetic functions’ (‘the ability of transition of the traits and characteristics to next generations of an organism by propagation, or the ability of reproducing the whole organism’) and ‘functional units of heredity’ (‘a gene or DNA or RNA fragment with genetic function of an organism’). Thus, the new provisions regarding genetic resources are clearly not applicable to inventions that do not use genetic functions of materials taken from plants or animals, such as a method of using corn to make gasoline, or cooking vegetables.¹¹⁶

- **Compulsory licensing:** Compulsory licensing opportunities existed under the previous Law for a company in China that has the capability to ‘exploit’ an invention to petition SIPO for a compulsory licence. The Revised Law specifies with more particularity the circumstances under which SIPO will grant compulsory licences.¹¹⁷

¹¹⁵ Patent Docs On-line Website, “Changes in Chinese Patent Law Adopted”, by Kevin E. Noonan, January 19, 2009 available on <http://www.patentdocs.org/2009/01/changes-in-chinese-patent-law-adopted.html> (Last visited on 5 June 2010)

¹¹⁶ This is also under consideration in Europe, although not fully implemented, See Case C-428/08. *Monsanto Technology LLC v Cefetra BV and Others*, July 2010 of the ECJ wherein it was found that “A method of using maize to make petrol may be covered if the maize is initially genetically modified.” Available at <http://lexisweb.co.uk/cases/2010/July/Monsanto-Technology-LLC-v-Cefetra-BV-and-others-Argentine-State-intervening> (Last visited on 21 July 2010)

¹¹⁷ Patents and Technological Progress in a Globalized World, Volume 6, “Compulsory Licensing in Chinese Patent Law” by Xiaoguang Shan from Tongji University, Shanghai, P.R. China, ISBN 978-3-540-88743-0 (Online), Springer Berlin Heidelberg publishers, November 2008

- **Double patenting:** Double patenting provisions with regards to patents and utility patents have been clarified. The Revised Law while stipulating 'only one patent can be granted to an identical invention-creation' provides an exception to double patenting on simultaneous filings for both invention and utility model on the same day for the same subject matter by the same applicant. Article 41 of the Implementing Rules requires the applicant to state the facts of simultaneous filing on both filing requests in order to benefit from the exception. Additionally, the applicant must abandon the earlier granted utility model in order for SIPO to grant the corresponding invention patent. The utility model patent expires on the date the invention patent is granted.
- **Damage award increases:**¹¹⁸ The 'cap' on fines for infringement has been raised, from 3 times the 'illegal income' made from the infringement or RMB 50,000 (US \$7,311.33) -- where there was no illegal income made from the infringement -- to 4 times the illegal income or RMB 250,000 (US \$36,556.66) for income-less infringement. Statutory damages can be as high as RMB 500,000 (US \$73,113.31) at the court's discretion, and the changes in Chinese law now provide methods for calculating damages for actual losses to the patentee; profits made by the infringer; reasonable multiple of royalties paid (presumably, by licensees); or in the absence of these, up to RMB 1,000,000 (US \$146,226.63). Included are damages incurred by a patentee as 'reasonable costs' incurred in protecting its rights. The New Law imposes the requirement for a bond for preliminary injunctions or other 'pre-action' relief, including seizures to preserve evidence.
- **Springboard exception:**¹¹⁹ Finally, the Revised Law has provisions (for the first time), similar to the Hatch-Waxman Act,¹²⁰ that define as non-infringing conduct, acts taken to provide information to administrative agencies for obtaining approval to make, use, or import a patented medicine or medical devices. There are no provisions extending patent term for delays in obtaining approval.

¹¹⁸ *Law-Now, CMS Cameron McKenna's free online information service*, 13 March 2009, Article, "China: New Chinese Patent Law: What Does It Mean For Life Sciences Companies", by Jonathan Selvadurai and Nicolas Zhu

¹¹⁹ Springboarding is an exception to patent infringement and in some jurisdictions, it is known as a 'Bolar', 'regulatory review' or 'Hatch-Waxman' exception. Springboarding refers to the use of the subject matter of a patent for the purpose of obtaining regulatory approval of a generic version of the patented product while the patent is still in force.

¹²⁰ Drug Price Competition and Patent Term Restoration Act, informally known as the "Hatch-Waxman Act" [Public Law 98-417]

With regards to the transition between the old and Revised Law, SIPO announced the *Transitional Measures for Implementation of the Amended Implementing Rules* on 21 January 2010. In general, the old Patent Law and Implementing Rules still govern application and corresponding patents with a filing date before 1 February 2010. Affairs concerned with acquisition and validity of a patent should be subject to the law which is effective on the application date, while other affairs of a patent or a patent application should depend on the law effective on the date when the critical conduct or event occurs.

China signed a Memorandum of Understanding (MOU) with the USA on 19 May 2010. The MOU between SIPO and the USPTO establishes a general framework for bilateral co-operation between China and the United States.

The ultimate goal is to improve the administration and effectiveness of the intellectual property systems through the exchange of information. The countries will endeavour to develop best practices and engage in other co-operative activities as their bilateral co-operation moves forward, and it included a bilateral Patent Prosecution Highway (PPH) agreement.¹²¹

4.1.1.2 Patent term

An invention patent¹²² has a term of twenty years from the filing date. A design patent has a term of 10 years¹²³ (and may constitute a comparatively quick and easy avenue to afford protection to eligible items). The third patent variety, a utility model, has a term of only 10 years. No extension of this term is provided for any category of technology.

4.1.2 Japan

4.1.2.1 Scope

Japan currently applies the so-called Industrial Property System¹²⁴ which comprises 4 laws relating to industrial property i.e. the Patent Law,¹²⁵ the Utility Model Law, the Design Law, and the Trade mark Law, which respectively extends protection to patents, utility models, designs and trade marks. A brief overview of a few other rights is provided in Annexure 3.

¹²¹ China Law website "USPTO Signs PPH Deal With China; USPTO Eliminates PPH Fee", published 1 June 2010, to be viewed at <http://chinaslaw.cn/uspto-signs-pph-deal-with-china-uspto-eliminates-pph-fee.html> (last visited on 7 June 2010)

¹²² Similar to a utility patent in the USA

¹²³ Similar to Design in South Africa and a Design Patent in the USA

¹²⁴ Japanese Patent Office website to be found at http://www.jpo.go.jp/cgi/linke.cgi?url=/seido_e/s_gaiyou_e/4houe.htm

¹²⁵ Non-formal English Translation of Chapter I (Patent) Law - <http://www.iip.or.jp/e/translation/nakayama/index.html>

As of 29 January 2010, Japan will participate in a PPH programme with the European Patent Office. The most recent event is the full-time implementation of the PPH system between the Japan Patent Office (JPO) and the United Kingdom Intellectual Property Office (UKIPO). Both offices agreed to apply the pilot scheme on a trial basis since 2007; on a full-time basis from 10 March 2010.¹²⁶

This agreement has made the UK the third country with which Japan implements a full-time PPH - after the USA and South Korea - and is a further step toward enhancing the PPH scheme as a means of assisting applicants to acquire patents in participating countries more expeditiously and adequately.

After a patent is granted, the patentee has an exclusive right to commercially work the patented invention,¹²⁷ where 'work' an invention means¹²⁸ make, use, assign, lease, import, or offer for assignment or lease a patented product, use a patented process, or use, assign, lease, import, or offer for assignment or lease the product made by a patented process.¹²⁹

4.1.2.2 Patent term

After payment of the maintenance fees for the first 3 years, a patent right comes into force by registration.¹³⁰ The commissioner issues the certificate of patent to the patentee.¹³¹ The term of patent is twenty years from the filing date. In exceptional cases a maximum of 5 years extension is possible,¹³² such as for medicines.

The disclosure requirements for an application of an extension of term are (as defined in the Act):

' (1) A person(s) filing a request for the registration of extension of the duration of a patent right shall submit a written application to the Commissioner of the Patent Office stating the following:

- (i) the name, and the domicile or residence of the applicant*
- (ii) the patent number*
- (iii) the period for which the extension is requested (not exceeding 5 years)*
- (iv) the description of the disposition designated by Cabinet Order as provided in Article 67(2).*

¹²⁶ See the JPO website on http://www.meti.go.jp/english/press/data/20100310_01.html (Last visited on 1 June 2010)

¹²⁷ Article 68

¹²⁸ Article 2(3)

¹²⁹ Baker McKenzie IP Guide for Japan 2004

¹³⁰ Article 66

¹³¹ Article 28

¹³² Article 67(2)

(2) The written application under the preceding paragraph shall be accompanied by materials specifying the reason(s) for the extension, as provided by Ordinance of the Ministry of Economy, Trade and Industry.'

4.1.3 Europe

4.1.3.1 Scope

The EU has many activities and legislation aimed at the protection of intellectual property rights.¹³³

To name but a few, it covers copyright and related rights, protection of inventions, trade mark protection, community design or models, counterfeit goods and piracy and technology transfer agreements.

The protection of intellectual property is governed by various international conventions to which the EU has signed up to, such as the:

- Charter of Fundamental Rights,¹³⁴ which states that 'intellectual property shall be protected'.
- Berne Convention for the Protection of Literary and Artistic Works,¹³⁵ Brussels Convention for protection of programme carrying signals by satellite¹³⁶ and Paris Convention¹³⁷ for the Protection of industrial property.
- World Intellectual Property Organisation (WIPO) Copyright Treaty and Performances and Phonograms Treaty.
- World Trade Organisation (WTO) with the agreement on trade-related aspects of intellectual property rights (TRIPS).
- Action Strategy for the Enforcement of Intellectual Property Rights.¹³⁸

In order to bring itself into line with these international commitments, the EU adopted the Directive on the Enforcement of Intellectual Property Rights¹³⁹ (also labelled the 'IPR enforcement directive), in March 2004.

¹³³ Europa – Summaries of EU legislation website to be viewed at http://europa.eu/legislation_summaries/internal_market/businesses/intellectual_property/index_en.htm (Last visited on 1 June 2010)

¹³⁴ http://ec.europa.eu/justice_home/unit/charte/en/charter-freedoms.html (See Article 17.2)

¹³⁵ Convention of September 9, 1886, completed at PARIS on May 4, 1896, revised at BERLIN on November 13, 1908, completed at BERNE on March 20, 1914, revised at ROME on June 2, 1928, at BRUSSELS on June 26, 1948, at STOCKHOLM on July 14, 1967, and at PARIS on July 24, 1971, and amended on September 28, 1979 to be found at http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html (Last visited 10 June 2010)

¹³⁶ Done at Brussels on May 21, 1974 and to be found at http://www.wipo.int/treaties/en/ip/brussels/trtdocs_wo025.html

¹³⁷ Paris Convention of March 20, 1883, as revised at Brussels on December 14, 1900, at Washington on June 2, 1911, at The Hague on November 6, 1925, at London on June 2, 1934, at Lisbon on October 31, 1958, and at Stockholm on July 14, 1967, and as amended on September 28, 1979) to be found at http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html (Last visited on 10 June 2010)

¹³⁸ http://trade.ec.europa.eu/doclib/docs/2005/april/tradoc_122636.pdf (Last visited on 12 Sept 2009)

This Directive¹⁴⁰ sought to consolidate the fragmented body of EU legislation on intellectual property - i.e. disparate measures on copyrights, trade marks, designs, counterfeiting and piracy, computer programmes, et cetera - to create more clarity and predictability for European businesses. It gave national authorities increased powers to pursue infringers and obtain compensation for rights holders.

It has implemented a Directive on the legal protection of biotechnological inventions (Directive 98/44).¹⁴¹

Patent protection in the European Union and in Europe more generally, still exists only on a national basis. There is no federal European patent. However, there are 2 routes for obtaining national patent rights in the various individual EU countries. The first is the conventional national route in which a patent is applied for separately in each country of interest, and the second is the European Patent Convention (EPC) system, in which a single application is filed through the European Patent Office in English, French or German and prosecuted through to grant. Ultimately, the EPC route results in national patents via an EPO application, which are in all ways equivalent to the respective national patents (as they are prosecuted in national courts). It is only the application route that differs.

Considering firstly the National route, there are several minor European states (such as Monaco, Lichtenstein and San Marino) which have their own idiosyncrasies.

However in general, each European country has its own patent system and it is possible therefore to apply for a patent at any particular national patent office. It will be readily appreciated that in general, patent applications should be filed in the national language of the country in question, though some countries have more than one official language, such as Norway, where it is possible to file an application in Norwegian or New-Norwegian. In Switzerland it is possible to file an application in French, German or Italian. The significant point to bear in mind is that in most countries it is necessary to file in the home language and this has implications from the point of view of initial filing costs and the lead time that a local agent may need in order to file an application.

¹³⁹ Corrigendum to Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights (OJ L 157, 30.4.2004); [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0048R\(01\):EN:NOT](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0048R(01):EN:NOT) (Last visited on 10 June 2010)

¹⁴⁰ Directives are instructions to member states to implement, within their own laws, the requirements listed in the Directive. This means that in most instances anything that appears in a Directive must have the same implications in all member states.

¹⁴¹ OJ L 213, 30.7.1998, p. 13–21

All EU member states and practically all other European states are signatories to the Patent Cooperation Treaty (PCT) and therefore it is possible to derive patent protection in all these countries on the basis of a PCT application. However, there is a restriction in some EU states that will not accept a national application based on a PCT application. In those states an applicant is restricted to protection via the EPO.

Countries in which national applications via the PCT are not permitted and where therefore an EPO application must be relied upon include France, Netherlands, Greece, Belgium and Cyprus. With the frequent accession of new states to the EPC, this list of countries is constantly changing. The current listing is shown in Annexure 4.

All European countries are signatories to the Paris Convention and therefore convention priority can be claimed in the normal way. However, national practices vary significantly in their approach to patentability, though there are moves towards harmonisation. All countries require absolute novelty for patentability but the attitude taken to unity of invention, and more significantly inventive step, does vary from country to country, and in some cases quite substantially. In addition, some national practices include post-grant opposition, while others do not.

The format of a patent specification is generally fairly consistent throughout EU member states and other European countries. The precise format of claims does however vary with some countries requiring the 'characterised in that' format, and others favouring the conventional non-characterised format.

4.1.3.2 Patent term

The European Patent Convention requires all jurisdictions to give a patent, issued within a member country, a term of twenty years from the actual date of filing an application for a patent or the actual date of filing an international application under the PCT designating the EPO.¹⁴² The actual date of filing can be up to a year after the earliest priority date.¹⁴³ The term of a granted patent may be extended under national law if national law provides term extension to compensate for pre-marketing regulatory approval. For European Economic Area (EEA) member states this is by means of a Supplementary Protection Certificate (SPC).

¹⁴² Article 63(1) EPC

¹⁴³ Article 63(2) EPC

In European Union member countries, a SPC is a *sui generis*, extension of a patent under a specific, different, set of rights. This type of right is available for medicinal products, such as drugs; and plant protection products such as insecticides and herbicides.

Supplementary protection certificates were introduced to compensate for the long time needed to obtain regulatory approval of these products (i.e. authorisation to put these products on the market).¹⁴⁴

A supplementary protection certificate comes into force only after the corresponding general patent expires. It normally has a maximum life span of 5 years. The duration of the SPC can however be extended to 5.5 years when the SPC relates to a human medicinal product for which data from clinical trials conducted in accordance with an agreed Paediatric Investigation Plan have been submitted.¹⁴⁵

Disclosure requirements are set out in Article 8 of the Directive: 'The application for a certificate shall contain:

- (a) a request for the grant of a certificate naming applicant and its address, and in case a representative has been appointed, its name and address
- (b) the number of the basic patent and the title of the invention
- (c) the number and date of the first authorisation to place the product on the market
- (d) a copy of the authorisation to place the product on the market in which the product is identified, containing in particular the number and date of the authorisation and the summary of the product characteristics listed in Article 4a of Directive 65/65/EEC or Article 5a of Directive 81/851/EEC
- (e) if the authorisation referred to in (d) is not the first authorisation for placing the product on the market as a medicinal product in the Community, information regarding the identity of the product thus authorised and the legal provision under which the authorisation procedure took place, together with a copy of the notice publishing the authorisation in the appropriate official publication'.

¹⁴⁴ Council Regulation (EEC) No 1768/92 of 18 June 1992 concerning the creation of a supplementary protection certificate for medicinal products available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992R1768:EN:HTML> (Last visited on 5 June 2010)

¹⁴⁵ Article 36 of Regulation (EC) No 1901/2006 to be viewed on <http://eur-lex.europa.eu/LexUriServ/site/en/consleg/2006/R/02006R1901-20070126-en.pdf> (Last visited on 4 June 2010)

4.1.4 USA

4.1.4.1 Scope

Over the past decade, several proposals to harmonise US patent law with the rest of the world's patent laws have been successful.¹⁴⁶ The resulting amendments have changed many substantive rules of patent law in the United States, including novelty and loss of rights provisions,¹⁴⁷ confidentiality of pending applications and term length.¹⁴⁸

There is, nonetheless, one rule of patent law in the United States that has repeatedly withstood proposals for amendment, namely the *first-to-invent* rule of priority.¹⁴⁹ This doctrine means that the inventor who first conceived of the invention is considered the first inventor and is entitled to patent protection.

Other countries have patent systems based on the 'First-to-File' doctrine, in which the patent is granted to the inventor who is the first to file a patent application, regardless of the date of invention. The Patent Reform Act of 2007,¹⁵⁰ which was passed by the House of Representatives in September 2009¹⁵¹ and is awaiting a vote in the Senate, if becomes law, will change this, the bill proposes the following reform measures:

- First-to-file rights and elimination of interference proceedings.
- Reform to make it easier to file a patent application without the inventor's co-operation.
- Limitation of damages to only the economic value of the improvement as compared to the prior-art.
- Specific limitations on when damages may be trebled for wilfulness.

¹⁴⁶ American Inventors Protection Act of 1999, Pub. L. No. 106-113, 113 Stat. 1501 (1999) available at <http://www.uspto.gov/patents/law/aipa/> (Last visited on 10 June 2010)

¹⁴⁷ *id.* § 4503 (codified as amended at 35 U.S.C. § 122 (2006)) (providing for publication of applications) to be viewed at <http://uscode.house.gov/download/pls/35C10.txt> (Last visited on 10 June 2010)

¹⁴⁸ *id.* § 4402 (codified as amended at 35 U.S.C. § 154 (2006)); Uruguay Round Agreements Act § 532(a)(1), 108 Stat. 4983 (1994) (codified as amended at 35 U.S.C. § 154 (2006)) (Providing patent term of twenty years from date of filing).

¹⁴⁹ Patent Reform Act of 2007, S. 1145, 110th Cong. (2007); H.R. 1908, 110th Cong. (2007); Patent Reform Act of 2005, H.R. 2795, 109th Cong. (2005); Patent System Harmonization Act of 1992, H.R. 4978, 102d Cong. (1992). Congressional hearings regarding problems with the first-to-invent rule of priority date back even earlier. See, e.g., *The American Patent System: Hearings before the Subcomm. on Patents, Trade marks, and Copyrights of the S. Comm. on the Judiciary*, 84th Cong. 287–91 (1955) (relating the seventeen-year history of an interference proceeding involving U.S. Patent No. 2,705,484). Charles Gholz recounts that the father of Judge Giles Rich (also a patent lawyer) predicted that the United States would switch from first-to-invent to first-to-file in the 1930s. Charles Gholz, *First-to-File or First-to-Invent?*, 82 J. PAT. & TRADE MARK OFF. SOC'Y 891, 891 (2000) and Article by MICHAEL F. MARTIN* from University of California, San Diego (B.S., Physics); University of Chicago (M.S., Physical Chemistry); Stanford Law School (J.D.). Mr. Martin is a Senior Attorney at the San Francisco office of Drinker Biddle & Reath LLP, "THE END OF THE FIRST-TO-INVENT RULE: A CONCISE HISTORY OF ITS ORIGIN" Published Sept 2009 available at <http://www.piercelaw.edu/assets/pdf/idea-vol49-no3-martin.pdf> which conclude that the US first to invent is a legacy and still with the US "for now" (Last visited on 9 June 2010)

¹⁵⁰ See http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1908ih.txt.pdf for a copy of the bill (Last visited on 10 June 2010)

¹⁵¹ See <http://www.govtrack.us/congress/bill.xpd?bill=h110-1908> (Last visited on 10 June 2010)

- Post-grant opposition proceedings with a reduction in the litigation estoppel effect.
- Limitations on patent venue.
- Authority to the PTO director to create further regulations.

In addition to the above the USA has many activities and legislation aimed at the protection of intellectual property rights to a variety of intangible assets such as music, literature, artistic works, discoveries and inventions under the various acts. Most prominent are the 1976 Copyright Act;¹⁵² for trade marks used in commerce, federal trade mark protection is available under the federal trade mark statute, the Lanham Act.¹⁵³ Trade secrets are protected only under state law¹⁵⁴ under the Uniform Trade Secrets Act.¹⁵⁵

Patents in the United States are governed by the Patent Act (35 US Code)¹⁵⁶ updated November 2005, which established the United States Patent and Trade mark Office (the USPTO). The most common type of patent is a utility patent. Design patents protect ornamental designs. Plant patents protect new varieties of asexually reproducing plants, in this regard, note in particular the Plant Patent Act of 1930 (PPA), the Plant Variety Protection Act of 1970 (PVPA) and the Patent Act of 1952. Each of these laws provides distinct types of protection for distinct categories of living matter. This is different from the EC where this subject matter is specifically excluded from patent protection. US protection is thus broader.¹⁵⁷ A brief overview of some of these rights is provided in Annexure 5.

4.1.4.2 Patent term

Under current law (effective 8 June 1995), utility patents are granted for a period of twenty years from the date the patent application was filed, e.g. if a patent was issued on 22 February 2000 for a patent application filed on 27 June 1997, such patent will expire in June 2017.

¹⁵² <http://www.copyright.gov/title17/> (Last visited on 10 June 2010)

¹⁵³ <http://www.uspto.gov/web/offices/tac/tmlaw2.pdf> (Last visited on 10 June 2010)

¹⁵⁴ Basic Principles of Intellectual Property Law Brochure, Brinks Hofer Gilson and Loine, Page 43

¹⁵⁵ <http://nsi.org/Library/Espionage/usta.htm> (Last visited on 9 June 2010)

¹⁵⁶ <http://www.thecre.com/fedlaw/legal23.htm> (Last visited on 9 June 2010)

¹⁵⁷ See AGRICULTURAL BIOTECHNOLOGY: UNITED STATES CASE LAW to be found at <http://www.okjolt.org/articles/2004okjoltrev15.cfm> (Last visited on 8 Aug 2009)

Under prior law, patent protection lasted seventeen years from the date the patent was issued. Under the current law, if a patent application is pending for longer than 3 years, the patent term can be extended to give the applicant seventeen years to enjoy the patent, e.g. if an inventor filed a patent application on 15 June 1997 and a patent was granted on 15 December 2000, the patent term can be extended so that the patent will not expire until December 2017. The extension is available only if the delay is not the fault of the applicant.

For utility patents in existence prior to 8 June 1995, the patent term is the greater of seventeen years from the date of issue (the term under prior law) or twenty years from the application filing date. Design patents are granted for a period of fourteen years.

Under 35 U.S.C. §156(a) an extension of term is possible. This article states that *‘The term of a patent which claims a product, a method of using a product, or a method of manufacturing a product shall be extended in accordance with this section . . . , if– . . . (a)(4) the product has been subject to a regulatory review period before its commercial marketing or use; (a)(5)(A) except as provided in subparagraph (B) or (C) [not here relevant], the permission for the commercial marketing or use of the product after such regulatory review period is the first permitted commercial marketing or use of the product under the provision of law under which such regulatory review period occurred; . . . ’*

An application for the extension of the term of a patent is subject to the disclosure requirements prescribed by the Director and these requirements are:¹⁵⁸

- ‘(i) the identity of the product subject to regulatory review and the Federal statute under which such review is occurring
- (ii) the identity of the patent for which interim extension is being sought and the identity of each claim of such patent which claims the product under regulatory review or a method of using or manufacturing the product
- (iii) information to enable the Director to determine under subsection (a)(1), (2), and (3) the eligibility of a patent for extension
- (iv) a brief description of the activities undertaken by the applicant during the applicable regulatory review period to date with respect to the product under review and the significant dates applicable to such activities
- (v) such patent or other information as the Director may require.’

¹⁵⁸ 35 U.S.C. 156 Extension of patent term

The Drug Price Competition and Patent Term Restoration Act (Hatch-Waxman Act) of 1984 provides patent holders on approved patented products with an extended term of protection under the patent, to compensate for the delay in obtaining Food and Drug administration (FDA) approval. The maximum extension of term is 5 years.

4.2 Process for obtaining patent protection

Patent prosecution is the interaction between applicants and their representatives and a patent office with regard to a patent, or an application for a patent. Broadly, patent prosecution can be split into pre-grant prosecution, which involves negotiation with a patent office for the grant of a patent, and post-grant prosecution which involves issues such as post-grant amendment and opposition.

Patent prosecution is distinct from patent litigation, which describes legal action relating to the infringement of patents. The rules and laws governing patent prosecution are often laid out in manuals released by the Patent offices of various governments.

In the patent prosecution process, it is essential for businesses to understand the various phases that a patent application undergoes before it is granted, as well as the options for defending a patent claim during prosecution. It is essential that the timing between filing and grant is managed where possible as a pending application cannot be enforced against potential infringers. A final component to be borne in mind is that businesses should implement and maintain a multivariate analysis for the patent family in order to characterise differences in the processes leading to a withdrawal of the application by the applicant, a refusal of the patent grant by the examiner or an actual patent grant in the various jurisdictions. This entails specifically that the business considers prior art citation and response alignment to ensure that potential invalidity of a patent is appropriately overcome or corrected where possible.

4.2.1 China

The revised Implementing Regulations¹⁵⁹ to the Revised (Patent) Law which came into force on 1 October 2009, were published on 9 January 2010 and specifies the Patent Law; defines patentable subject matter, conditions for granting patents, application procedure and scope of protection accorded by law.¹⁶⁰

¹⁵⁹ Administrative regulation promulgated by the State Council on 15 June 2001, and amended on 28 December 2002 and again on 9 January 2010.

¹⁶⁰ See EU-China IPR2 website to be viewed on <http://www.ipr2.org/ipsearch/list.php?id=24#> (Last visited on 4 June 2010)

As a signatory to the Patent Cooperation Treaty in 1994, China will perform international patent searches and preliminary examinations of patent applications. Under China's Patent Law, a foreign patent application filed by a person or firm without a business office in China must be made through an authorised patent agent, while initial preparation may be done by anyone. Patents are filed with China's State Intellectual Property Office (SIPO) in Beijing, while SIPO offices at the provincial and municipal level are responsible for administrative enforcement.

4.2.1.1 Application procedure

Under the Patent Law, patent protection is available in three forms¹⁶¹ (subject to a specific list of non-patentable inventions for which the granting of a patent is not allowed), namely invention patents, design patents and utility models.

In order to be patentable an invention or utility model must meet the typical requirements of novelty, inventiveness and usefulness.

Patent applications are filed and registered with the Patent Office, the state patent administration authority for the PRC. China adopts a first to file system – i.e. if 2 or more applicants file for the same invention the applicant who files first prevails. Figure 3 below is a diagrammatic representation of the application procedure.

4.2.1.2 Publication

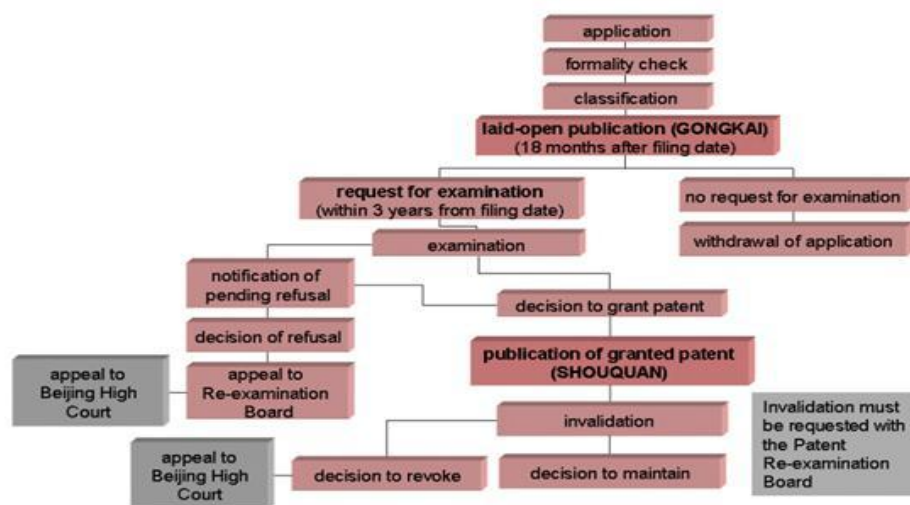
A patent application for an invention patent is typically published twice, first after passing the preliminary examination (usually eighteen months after the date of filing) and again when the Patent Office publishes a notice of grant. The patent application number is unique and the granted patent retains this number. However, the 2 publication numbers mentioned above are different. See the example below.

Application number	Public number	Publication number (grant)	Patent Number
93100001.7	CN1089067A	CN1033297C	ZL93100001.7

Table 1: Chinese patent publication numbering system

¹⁶¹ Distilled from Opinion for Sasol from Freshfields Bruckhaus Deringer dated 3 August 2006 on Chinese Substantive Law

Figure 3: Overview of the application procedure in China since 2001¹⁶²



As from 7 April 2010, Chinese patents with a publication date of 7 April 2010 and later, the Chinese Patent Office (SIPO) publishes granted patents with the kind code 'B', replacing the former kind code 'C' which was used from 1993 to April 2010.

As from 7 April 2010 the same publication number is used for published applications (A) and granted patents (B). Only the kind code differs.¹⁶³

Furthermore, in August 2007, SIPO changed the format of publication numbers by extending them from 7 to 9 digits. This means for applications published before August 2007 the 7 digit number format will be kept for the publication of the granted patent. Consequently, granted patents will be published with either 7 or 9 digit publication numbers for a transitional period.¹⁶⁴

4.2.1.3 Examination and prosecution

Under the Patent Law of 2000, if requested by the applicant, the Patent Office would have examined the application as to its substance. This request could be made at any time within 3 years from the date of filing.

¹⁶² EPO Website, Asian portal to be viewed at [http://documents.epo.org/projects/babylon/eponet.nsf/0/BB8A223D7388E491C12572410062FEA0/\\$File/patent_granting_procedure_2001onwards_en.gif](http://documents.epo.org/projects/babylon/eponet.nsf/0/BB8A223D7388E491C12572410062FEA0/$File/patent_granting_procedure_2001onwards_en.gif) (Last visited 10 June 2010)

¹⁶³ "Numbering system - China" on the EPO's "Virtual helpdesk" on Asian patent information at <http://www.epo.org/patents/patent-information/east-asian/helpdesk/china/numbering.html?update>. (Last visited on 9 June 2010)

¹⁶⁴ EPO Website "East Meet West" to be viewed at <http://eastmeetwest.european-patent-office.org/news> (Last visited on 25 May 2010)

If an applicant fails to make this request without justified reason, the applicant is deemed to have withdrawn the patent application. There was no time limit within which the Examiner should issue an Examination Report. Once an Examination Report has been issued, the Examiner will set the deadline by which the applicant must respond thereto. If after such action the application does still not comply with the Patent Law, the application will be rejected.

Additionally under the old Law, substantive examination is not required for utility model patents and design patents. If there is no cause to reject an application for a utility model patent or a design patent during the preliminary examination, the Patent Office will grant the patent. Under the Revised Law the scope of the examination report is expanded to be available to design patents as well and requires more detailed content.¹⁶⁵ It is also now referred to as the 'patent right evaluation report'. An evaluation report provides comprehensive analysis and assessments of all patentability issues, which can be referred to by the court as preliminary evidence on patentability and stability of the patent at issue. The patentee and any stakeholder may request such report. Article 56 of the Implementing Rules further prescribes that the stakeholders requesting the report must be those who are entitled to initiate the infringement actions.

Generally, the exclusive licensees and the specially-authorized licensees of other types are also entitled. A further improvement is in Article 57 which requires SIPO to complete the evaluation report within 2 months upon receiving a request. In addition, only one report is made for a patent, which will then be made available to the public.

Previously, if a Chinese entity or individual intended to file a patent application in a foreign country for an invention completed in China, they first had to file a patent application with the Patent Administration under the State Council and entrust a patent agency, designated by the Patent Administration under the State Council to act on its or his behalf. This has now been changed in the Revised Law. As discussed earlier, the Revised Law abolishes the requirement for a Chinese entity (including a foreign invested enterprise in China) to file a patent application first in China, for its inventions completed in China, and establishes a confidentiality examination procedure instead.

¹⁶⁵ China Law & Practise on-line Journal, "Reshaping the patents game", March 2010 Issue, to be viewed at <http://www.chinalawandpractice.com/Article.aspx?ArticleID=2443556&Type=Channel&RuleUsed=PageArticle> (Last visited on 7 June 2010)

An invention completed in China shall go through such procedure first, before it is filed in a foreign country for patenting. If the company fails to observe such procedure China may refuse to grant a patent for the invention. Equally important, in contrast to the former requirement for first filing in China, the confidentiality examination procedure applies not only to Chinese entity but to all entities, if their inventions are completed in China. As a result, the strategy of some foreign companies under the old law, namely to attribute their innovations completed in China to their foreign headquarters to avoid the requirement for first filing in China, does, for this purpose, no longer provide a means to avoid the law.¹⁶⁶

An applicant dissatisfied with SIPO's examination of a patent application may, within 3 months of receiving notification of the rejection, seek re-examination by the semi-independent Patent Re-examination Board (PRB). If the applicant is dissatisfied with the PRB's decision, legal proceedings may be instituted within 3 months in the People's Court; generally the Administrative Division of the Beijing No. 1 Intermediate Court. In addition, any entity or individual may request the PRB to invalidate any patent at any time.

Appeals from PRB decisions may be heard by the Civil Division of the People's Court. Individuals seeking to contest or defend the validity of a patent may want to carefully evaluate the expertise of the court that would be hearing the case, as well as its record and experience in patent decisions.

Any application to invalidate a patent may be withdrawn at any time before any decision is made by the PRB. Under the old Law this would have terminated the proceedings. Under the Revised Law, in terms of Article 72 of the new Implementing Rules it is provided that if the PRB concludes that the invalidation of the whole or part of the patent rights can be determined based on the re-examination already conducted, invalidation proceedings will move forward regardless of the withdrawal.

After a patent has been granted, any change in the status of the patent is recorded only in the Patent Register, which may then be different from the patent certificate.

¹⁶⁶ China's new Patent Law and Implementation Rules, News letter, Feb 2010, by law firm Wenfei, Dr. Paul Thaler (WENFEI Attorneys-at-Law Ltd., is a Swiss law firm focusing on China related Matters with their managing partner engaged in China since 15 years, acting as board member of various listed and non-listed companies in China) to be viewed at http://www.wenfei.com/fileadmin/pdfs/News_Events/100209_Newsletter_re__3rd_Revision_of_China_patent_Law_final.pdf (Last visited on 7 June 2010)

Where the contents of the Patent Register and patent certificate are not consistent with each other, the Patent Register is considered to reflect the correct status, including information concerning such items as transfer of ownership, status of the annual fee, invalidation and lien situation.

The average¹⁶⁷ examination time in China in 2009 was twenty-five months for invention patents, 6.1 months for utility models and 7.2 months for designs. Examination is only started upon explicit request by the applicant (deferred examination). In China, the applicant has to file this request for examination within 3 years from the application date.

4.2.1.4 Language barriers

Another aspect to be borne in mind when a non-Chinese applicant files a patent application in China is that translation is indispensable. Since Chinese is different from other languages, translation is not merely a simple word conversion from a foreign language into Chinese, but a process of re-writing in Chinese based on the full understanding of the original text.¹⁶⁸

Translation of the patent specification is more demanding because it is both a technical and legal document. Therefore, the accuracy of the translation is very important, if not the most important thing, in patent filing and prosecution. Translation mistakes, especially mistakes in the claims, may make the protection scope unclear, indefinite or different from the Chinese translation. This is quite a risk as an incorrect word may render a patent invalid.

Of further importance is to note that the Chinese language does not cover plural forms of a word, thus if the patent's improvement to the prior art lies in the change of 'one layer' to 'layers' in a device, the omission of the modification with 'a plurality of' in the Chinese translation would make the claimed invention cover the prior art and make it invalid, due to a lack of novelty. In Chinese, the modifications to a noun have to be put before the noun, while modifications in English can be after the noun connected with the term, such as 'that' or 'which'.

¹⁶⁷ EPO Website, East-meets-west available at <http://www.epo.org/patents/patent-information/east-asian/helpdesk/china/faq.html#new5> (Last visited on 9 June 2010)

¹⁶⁸ Managing Intellectual Property Magazine "SUPPLEMENT – CHINA IP FOCUS 2008, 6th EDITION "Overcoming the language Barrier" on line at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1915268&issueID=> (Last visited on 4 June 2010)

A correct translation from English into Chinese requires full understanding of the technology of the invention in order to determine the right object to which the modifications are directed. Otherwise serious translation mistakes could occur. Chemical names in English generally have their equivalents in Chinese.

However, only a skilled chemist familiar with the chemical nomenclature can accurately translate chemical terms. Moreover, some chemical names in English appear very similar, such as 'methyl' and 'ethyl', which differ from each other by only one letter. When these terms are contained in a long composite chemical name, confusion and mistranslation may occur. Mistranslation of a chemical name in a patent claim will make the protection scope totally different from what the patentee really meant in seeking protection. The patent with such a mistranslated claim would probably not be enforceable.

4.2.2 Japan

Section 1 of the Japanese Patent Law states that 'The purpose of this law shall be to encourage inventions by promoting their protection and utilisation so as to contribute to the development of industry'. On the one hand, a patent system is designed to provide protection which is provided to an inventor when his invention is granted – so-called exclusive patent rights under certain conditions - and for a specified period of time. On the other hand, the system is designed to contribute to industrial development by promoting technological progress, enabling joint utilisation of new technological resources by publishing new inventions.

Article 39 states that a person who is the first to file an application for a patent for an invention may obtain that patent. A patent may be granted for an invention if:

- the invention as claimed is industrially applicable, novel (Article 29(1)) and inventive (Article 29(2))
- the patent does not harm public order, morality or public health (Article 32)
- amendments to the specification, claims or drawings remain within the scope of the features disclosed in the original version (Article 17bis)
- the specification discloses the invention in a manner sufficiently clear and complete for a person skilled in the art to carry it out (Article 36(4))
- the statement of the claims is clear (Article 36 (6))
- the application meets the requirement for unity of invention (Article 37)

- the applicant is the first to file an application for a patent for the invention (Articles 29bis and 39)
- the applicant has the right to obtain a patent for the invention (Article 25 and 38, and Article 49(7)).

4.2.2.1 Application procedure

A person desiring a patent shall submit a request, specification, claims, any drawings necessary, and the abstract to the commissioner of the Japan Patent Office.¹⁶⁹ Article 36bis allows an application in foreign languages (currently only in English) if the applicant submits a Japanese translation within 2 months from the filing date. However, the applicant may not amend the foreign language file.¹⁷⁰

Average patent pendency in Japan is currently between 5 and 6 years. The average time required from request to examination until the first office action is approximately twenty-six months..¹⁷¹ Under the PPH, attempts are being made to shorten this period and to streamline granting procedures in Japan.

4.2.2.2 Publication

Patent applications are published without a search report after eighteen months has expired from the filing date.¹⁷² The applicant may request early publication.¹⁷³

4.2.2.3 Examination and prosecution

Request for examination and payment of examination fee are needed for an application to be examined.¹⁷⁴ Prior to 2001, JPO patent applicants had 7 years from the filing date to decide whether or not to request an examination by the JPOs examiner. Since 1 October 2001 this examination request time has been shortened to 3 years due to the amendment of Japanese Patent Law in 2001.¹⁷⁵ If no request for examination is made within this request time (7 years for filing before 1 October 2001 and 3 years after), the patent application is deemed to have been withdrawn.

¹⁶⁹ Article 36

¹⁷⁰ Article 17(2)

¹⁷¹ EPO Website – East-meets-west at <http://eastmeetswest.european-patent-office.org/faq/countries/jp> (Last visited on 9 June 2010)

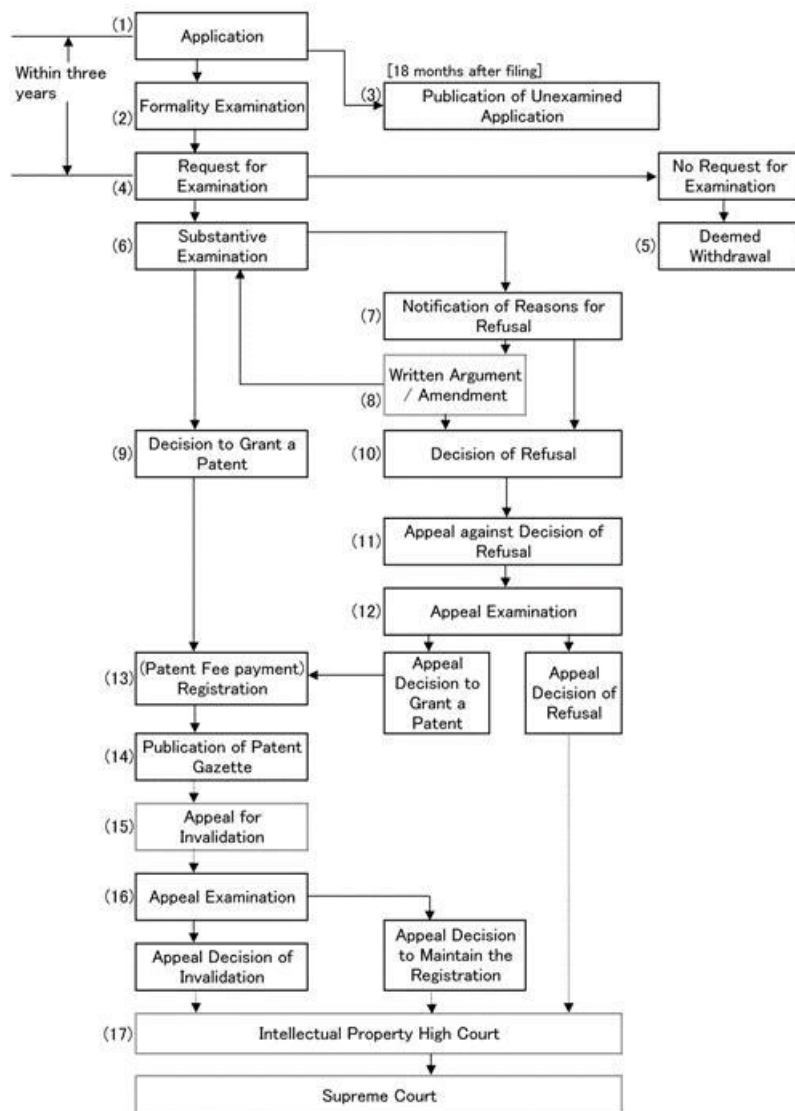
¹⁷² Article 64

¹⁷³ Article 64bis

¹⁷⁴ Article 48bis

¹⁷⁵ Article 48ter

Figure 4: Procedure for obtaining a patent in Japan¹⁷⁶



¹⁷⁶Japan Patent Office website, “Procedures for Obtaining a Patent Right” at http://www.jpo.go.jp/cgi/linke.cgi?url=/tetuzuki_e/t_gaiyo_e/pa_right.htm (Last visited on 9 June 2010)

A qualified examiner examines the application.¹⁷⁷ The examiner will notify the applicant of the reasons for refusal before making the decision to refuse a patent,¹⁷⁸ pointing out some of the above conditions for patenting are not met. The applicant may submit a statement or amendments against the reasons for refusal within a time limit designated by the examiner.¹⁷⁹

The time limit is normally sixty days after the date of notification for applicants living in Japan, or 3 months after the date of notification for applicants living in foreign countries.

If the examiner finds that some reasons for refusal notified to the applicant have not been addressed by the applicant's statement or amendment, the examiner issues a decision to refuse a patent,¹⁸⁰ alternatively the examiner issues the decision to grant a patent.¹⁸¹

Opposition procedure after an examiner's decision to grant a patent was abandoned in 2004;¹⁸² trial for invalidation¹⁸³ now serves as the alternative.

Applicants dissatisfied at the decision of refusal may demand a trial within thirty days from the date they received a copy of the decision.¹⁸⁴ Amendments are allowed within thirty days from the date of demand for the trial.¹⁸⁵

If amendments are made, an examiner will re-examine the application.¹⁸⁶ Usually the examiner who made the decision of refusal is appointed for re-examination. The examiner will make a decision to grant a patent, or report to the Commissioner if there are reasons for refusal that have not dissolved by the amendments.¹⁸⁷

¹⁷⁷ Article 47

¹⁷⁸ Article 50

¹⁷⁹ Article 17bis and 50

¹⁸⁰ Article 49

¹⁸¹ Article 51

¹⁸² <http://www.jpaa.or.jp/english/law/2003amendment.html> (Last visited on 10 June 2010)

¹⁸³ Article 123

¹⁸⁴ Article 121

¹⁸⁵ Article 17bis, paragraph 1

¹⁸⁶ Article 162

¹⁸⁷ Article 164

Where amendments were not made or the examiner reported that reasons for refusal still remain, a group of 3 or 5 qualified trial examiners¹⁸⁸ conduct the trial by written communication with the applicant.¹⁸⁹ A person dissatisfied at the trial may demand a retrial¹⁹⁰ or may sue the commissioner of the Japan Patent Office.¹⁹¹

Whenever the applicant is allowed to amend the claims, specification, and drawings of a certain application, the applicant may derive a new application from the current application.¹⁹² This is called a divisional application. A division of an application is not allowed after the applicant received a copy of the examiner's decision to grant a patent.

Sometimes the claims to be enforced contain errors which need correction. In Japan there is no US-style re-issue (or re-examination) system to correct or even broaden (if applicable) granted claims or errors made without any deceptive intention by the applicant. The correction procedure and scope for granted claims in Japan is narrow and limited to the restriction of the claims; correction of errors in the specification and the clarification of an ambiguous description.

The correction appeal procedure is not available where the change would 'substantially enlarge or modify the claim or claims.' Therefore post-grant broadening amendments are never permitted. Corrections must not substantially expand or alter the scope of the claims. Patentees should thus always have subject matter dependency in order to avoid these types of post-grant claim correction problems that will let the accused infringer go unpunished because of prosecution, or possibly translation, errors.

4.2.3 Europe

In the European patent application process the member states of the European Union¹⁹³ and the contracting states of the European Patent Convention which grant patents through the EPO, are not the same. (The EPC contracting¹⁹⁴ and Extension States are listed in the Annexures.)

¹⁸⁸ Article 136

¹⁸⁹ Article 145(2)

¹⁹⁰ Article 171

¹⁹¹ Article 178 and 179

¹⁹² Article 44

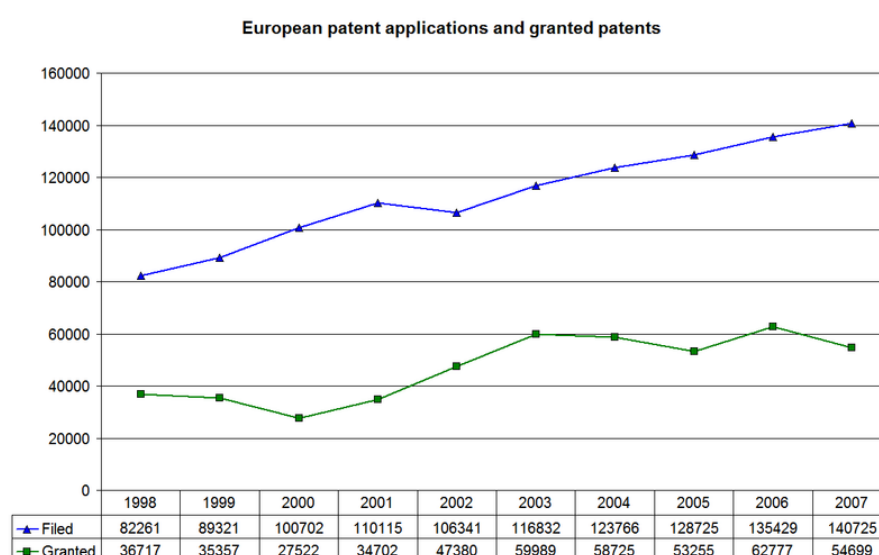
¹⁹³ Member States of the European Union June 2008 are Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

¹⁹⁴ <http://www.european-patent-office.org/epo/members.htm> (Last visited on 9 June 2010)

Member countries of the EPC have not dispensed with their national patent offices and in general, it is necessary, if you are an EC national, to apply to your own country office for an EPC patent, probably because of national interests.

On average, and from personal experience, an EPO application takes between 3.5 and 5 years to proceed to grant. According to the EPO website statistics the average time from filing to grant in 2007 was 43.7 months (3.6 years). See Figure 5¹⁹⁵ below.

Figure 5 European patent applications and granted patents



4.2.3.1 EPC system for patent filing

Due to the rapid development of technology, the enactment of various international treaties and the recent rise in the number of EPC Member States, the Administrative Council¹⁹⁶ initiated a major effort to revise the EPC in order to modernise and simplify the European patent system, while maintaining the proven foundational principles of substantive and procedural patent law enshrined in the EPC 1973.

¹⁹⁵ Wikipedia to be viewed at http://en.wikipedia.org/wiki/Grant_procedure_before_the_European_Patent_Office (Last visited on 9 June 2010)

¹⁹⁶ The Administrative Council acts as the Organisation's supervisory body as well as, to a limited extent, its legislative body. The actual legislative power to revise the European Patent Convention lies with the Contracting States themselves when meeting at a Conference of the Contracting States. The constitution of the Administrative Council can be viewed on the EPO Website on <http://www.epo.org/about-us/epo/administrative-council.html> (Last visited on 3 June 2010)

The revised version of the EPC 1973 (EPC 2000¹⁹⁷) entered into force on 13 December 2007. It features more than 100¹⁹⁸ amendments and deletions.

An EPC application is made via a single, harmonised procedure before the European Patent Office (EPO) in one of the official languages,¹⁹⁹ and since EPC 2000 in any language, at the main office in Munich or at any of its branches at The Hague or Berlin or at a national patent office of a Contracting State, if the national law of the State so permits.²⁰⁰

The official languages of the EPO are English, French and German. If you file your European patent application in any other language, you need to file a translation into one of the official languages of the EPO within 2 months of filing the application.²⁰¹ If the translation is not filed in time, you will be invited to file the translation within 2 months of the notification of the invitation. If the translation is not filed within the time limit set in the invitation, the application is deemed to be withdrawn.

The language in which you file the application (or its translation, if not filed in English, French or German) is made the language of the proceedings, and any amendments made to the application or the European patent must be drawn up in that language. Otherwise, in written proceedings, any party may use any of the EPO's official languages.

At any time during the proceedings before the EPO, the translation may be brought into conformity with the text of the application as filed.

4.2.3.2 Application procedure

National patent offices in the contracting states can act as receiving offices for European applications, or any branch of the European Patent Office itself can be a receiving office.²⁰² In addition, European applications can be filed electronically at the European Patent Office.

¹⁹⁷ EPC 2000 can be viewed on the EPO website at <http://www.epo.org/patents/law/legal-texts/html/epc/2000/e/contents.html> (Last visited on 4 June 2010)

¹⁹⁸ "EPC 2000: A brief guide to the changes" by Haseltine Lake, Patent and Trade Mark attorneys, to be viewed here <http://www.haseltinelake.com/admin/publications/EPC%202000%20Paper/DownloadPDF> (Last visited on 4 June 2010)

¹⁹⁹ Article 14 EPC

²⁰⁰ Article 75(1)(b) EPC

²⁰¹ Article 14(2), Rule 6(1), EPC.

²⁰² Articles 75 to 86 EPC

The European Patent Organisation is a signatory to the Paris Convention and therefore, EPC applications can claim convention priority in the same way as national applications. The EPC can be designated in a PCT application and has a thirty-one month deadline for entering the national phase.

A typical filing procedure for an EPC application claiming priority from an earlier national application would be to file the application within the twelve month convention period together with a search request, designating all contracting states and electing all extension states. No designation fees or extension state fees are payable on filing.

4.2.3.3 Publication

When an EPC application has been accepted, the EPO issues a notice of intention to grant which sets a period of 4 months for paying grant fees and for submitting translations of the claims into the other 2 official languages to the EPO.

When these formalities have been completed, the EPO will issue a notice of grant which will set the grant date. This will be the date on which the granted patent is published. The granted EP number is the same as the publication number (at eighteen months) but is followed by the letter B.

4.2.3.4 Examination and prosecution

The European Patent Office (EPO) examines the application and will then produce a search report and preliminary view on patentability within a few months.²⁰³

Whether the search report and view on patentability is produced promptly or not, the application is published soon after eighteen months from priority, with a publication number followed by the letter A. If the search has been conducted in time, then the search report will be published with the application. If the search report has not been produced in time, then the search report will be re-published at a later date. The search report places each reference cited into a particular category and indicates the number of each claim to which the reference is relevant.

The most common categories are X, Y and A. X indicates that the references deprives the claims listed of novelty; Y indicates that the reference is particularly relevant when made in combination with another reference in category Y; A simply indicates that the references form part of the related or similar technology background.

²⁰³ Articles 90 to 98 EPC

Publication of the search report either with the application or separately, will set a 6-month deadline for filing a request for examination. At that stage, the examination fee and all designation and extension fees must be paid. The maximum number of designation fees payable is 7; thus, if 7 designation fees are paid, all states can be designated. Extension state fees are paid for on an individual basis.

Voluntary amendments can be submitted between receipt of the search report and prior to filing a request for examination. This will mean that the examination will be based on the revised claims. This can be a useful tactic to reduce the prosecution time.

It is possible at any stage to request expedited prosecution, which means that the EPO will 'fast-track' the application by making use of the Programme for Accelerated Prosecution of European patent applications (PACE);²⁰⁴ or by unconditionally requesting examination and waiving the right to receive a search report.²⁰⁵ However, this procedure does require co-operation by the Applicant. In particular, the Applicant must observe all time limits very strictly and must not cause any delays in the procedure. Experience suggests that applications which are expedited formally in this way are often not scrutinised carefully by Examiners and can therefore result in a patent with claims of a broader scope than an applicant may be entitled to. This in turn gives rise to difficulties at a later stage.

The format of a European patent application is quite conventional. The claims must be in the two-part 'characterised in that' format and the claims set should not include more than one independent claim in any category (apparatus, method, product, et cetera). A clear, explicit basis for the claims in the application as filed must be in place.

This is particularly significant if any amendments to the claims must be made during prosecution, since the absence of an explicit basis for an amendment will mean that the amendment will not be permissible.

More detail about the application requirements can be viewed in Annexure 6.

The European grant procedure takes about 3 to 5 years from the date the application is filed.

²⁰⁴ PACE enables applicants to expediently obtain the European search report, including an opinion under Rule 62(1) EPC, the first examination report and any communication under Rule 71(3) EPC. Details of PACE can be viewed on the EPO website on <http://www.epo.org/patents/law/legal-texts/journal/informationEPO/archive/20100507.html> (Last visited on 4 June 2010)

²⁰⁵ Rule 70(2) EPC. In this case, under Rule 62 EPC the European search report is issued together with a first examining communication under Article 94(3) and Rule 71(1) EPC instead of the opinion on patentability under Rule 62 EPC. A prompt and full response from the applicant then ensures that the proceedings can continue quickly

There are 2 main stages:

- Formalities examination and search report preparation: where the Office checks that the application meets all the formal requirements and prepares a search report listing documents relevant to the application. This report is sent to the applicant together with an opinion on whether the application and the invention to which it relates seem to meet the requirements of the EPC.
- Substantive examination: where the EPO at the applicant's request, investigates whether the invention meets the requirements of the EPC and can therefore lead to the grant of a European patent. Otherwise the application will be refused; alternatively, it may be withdrawn.

If an impasse is reached, oral proceedings (a hearing) may be instituted. Oral proceedings will take place before the Primary Examiner, a more senior chairman and a third member.

A decision to refuse an application, either in writing or at oral proceedings, can be made to the Board of Appeal. The appeal procedure under these circumstances usually takes at least a year or longer.

4.2.3.5 Attorney-client privilege

An important aspect that is of concern to corporate businesses is the matter of legal privilege during patent prosecution of an application, as the rules in various jurisdictions on this differ.

When exercising professional activities relating to an European patent application or a granted patent, European representatives will necessarily exchange confidential information with their clients, the secrecy of which must be keenly safeguarded. Recognising a pressing need for a protective attorney-client privilege to shield the communications between European representatives and their clients from disclosure into the jungle of US litigation,²⁰⁶ for example the EPC 2000²⁰⁷ makes an attorney-client privilege applicable to all proceedings before the EPO. This evidentiary privilege covers any communication regarding the assessment of an invention's patentability, the preparation and prosecution of European patent applications, and any opinion regarding validity, scope of protection or infringement of a European patent (application).

²⁰⁶ See e.g. cf. Bristol-Myers Squibb vs. Rhône Poulenc Rorer 2001 WL 1512597 wherein the whole European file case history of the European patent attorney was made available to the judges

²⁰⁷ Rule 153, EPC and Article 134a

It is not clear however, at this stage, whether any national court of justice, within or outside of Europe, will recognise the European patent attorney-client privilege defined in the EPC, as Art 134a (1)(d) EPC explicitly links ‘the obligation of confidentiality on the professional representative and the privilege from disclosure to the proceedings before the EPO’ and not to judicial proceedings before a court.

4.2.3.6 National validation of EPO application

The next stage is to validate²⁰⁸ the European Patent in the countries which are of interest and within the applicants patent filing strategy. The requirements for validation vary from country to country, with some countries requiring only recording an address for service while other countries require a full translation of the specification and claims. The position regarding the requirement for translation has been affected by the London Agreement which came into force on 1 May 2008. Under the London Agreement (as was explained in detail above), countries can effectively opt out of the obligation to file a translation; however, not all countries have ratified the London Agreement as yet. While an EPC application is pending, annual maintenance fees must be paid for the 3rd and subsequent years from the date of filing. Once a European patent has been granted, the maintenance fees cease but annual renewal fees must be paid on a national basis in those countries where the European patent has been validated. As for conventional national patents, the maximum term of an EP validated national patent is twenty years from the effective date of filing of the European application.

4.2.4 USA

4.2.4.1 Application procedure

The United States of America is the only country in the world that has a ‘first to invent’²⁰⁹ law. All other countries use ‘first to file’ laws where the first party to file a patent application on a new invention will generally be the one that gets the patent.

While that at first seems rather scary, in that you might think that someone merely hearing about an invention could file and get valid patent rights in non-US countries, that is generally not the case.

²⁰⁸ Article 2(2) EPC

²⁰⁹ The first to invent rule is the principle of granting a patent to the first inventor who conceives and reduces the technology or invention to practice.

The USA requires that the inventor(s) be identified on the patent application while many foreign countries do not require that the inventor(s) be identified, but merely the applicant.

The 'first to invent' rule is one reason why a business needs to pay attention to keeping good, witnessed, records of invention conception and progress. If records clearly show that the invention was presented to someone (or their known cohorts) who later was the 'first to file' in some country and they have no believable records showing their development prior to disclosure of the invention, then any patent they might get by being 'first to file' would most likely be invalid.

On application itself, the Act²¹⁰ provides that an application for patent shall be made, or authorised to be made, by the inventor, except as otherwise provided in the Act: *'Such application shall include a specification as prescribed by the Act, a drawing as prescribed by the Act and an oath by the applicant as prescribed by the Act'*. It is possible to file a provisional application at the USPTO.

'A provisional application for patent shall be made or authorized to be made by the inventor, except as otherwise provided in this title, in writing to the Director.

The application to include a specification and a drawing. A claim shall not be required in a provisional application'.²¹¹

It takes on average between 3 and 5 years for a US patent to be granted from date of filing the application. According to a recent USPTO report, the average time from application to grant is around thirty-four months, with patents in some areas of technology taking significantly longer. There is however quite a backlog at the US patent office

4.2.4.2 Publication

Prior to 29 November 2000 the USPTO only published patents upon grant. Patent applications filed after 29 November 2000 are now also published eighteen months after the earliest priority date of the application to bring US patent law in conformance with TRIPS. It is published with a patent application publication number and published again with a different patent number once the patent is granted.

²¹⁰ U.S.C. Section 111(a)

²¹¹ U.S.C. Section 111(b)

4.2.4.3 Examination and prosecution

After filing in the US Patent and Trade mark Office (USPTO) patent applications are classified by technology area and assigned for examination. A Patent Office examiner will review the application in the order in which it was received (in limited circumstances, it is possible to receive expedited handling). The examination consists of a study of the application for compliance with the legal requirements and a search through United States patents, prior foreign patent documents, and available literature, to see if the claimed invention is new and unobvious. A decision is reached by the examiner based on the results of this search. Typically, the examination will include a first office action; applicant's amended response, followed by a final office action.

The first formal correspondence from the USPTO concerning the patentability of the invention is in the form of a first 'office action', which is normally mailed to the applicant's patent attorney. This is generally received about 9 months after the application was filed, although the actual time can vary considerably depending upon the technical field of the invention.

The first office action will usually contain reasons for any adverse action, objection, or additional requirements. If the invention is not considered patentable subject matter, the claims will be rejected. If a patent is rejected, it is generally because the claims are not new in comparison to the prior art, or because the improvements made over the prior art are obvious. It is not uncommon for some or all of the claims to be rejected on the first action by the examiner; relatively few applications are allowed as filed.

If 2 or more inventions are claimed in a single application and are regarded by the Office to be of such a nature that a single patent should not be issued for both of them, the applicant will be required to limit the application to one of the inventions.

The other invention may be made the subject of a separate application which, if filed while the first application is still pending, will be entitled to the benefit of the filing date of the first application. This separate application is referred to as a 'divisional application'.

In responding to the first office action, the applicant's patent attorney will draft an amendment and response. This document will request reconsideration and will specifically address the perceived errors in the examiner's office action. Frequently, the document will include an amendment to the claims in order to clarify the invention and to overcome the prior art cited in the first office action.

In addition to the amendment, the document may contain arguments as to how the amended claims are patentable in view of the prior references cited or the objections made.

In filing amendments, the patent attorney must be careful not to add 'new matter' to the applications. Under the Patent Act, all amendments to the drawings or specifications must conform to part of the application as originally filed. Any matter involving a departure from or an addition to the original disclosure will be rejected as new matter. Typically, the new matter which an applicant would like to add includes new descriptions of how the invention works, or further clarification of the type of materials and components utilised. These types of additions are disallowed in order to prevent new inventions from being 'piggy-backed' on to old patent applications.

The response of an applicant to an action by the Office must be made before a prescribed deadline. Typically, the deadline is set 3 months after the office action was mailed, and can be extended 1 month at a time up to 6 months. Each 1 month extension requires the payment of an additional fee. If no reply to the office action is received before the 6-month deadline, the application is considered abandoned.

However, if it can be shown that the failure to prosecute the application was unavoidable or unintentional, the application may be revived by the Commissioner. The revival requires a petition to the Commissioner and a fee for the petition, which should be filed without delay. The proper response must accompany the petition if the response had not been previously filed.

After response by the applicant, the application will be reconsidered and the applicant will be notified if claims are rejected or objections or requirements made, in the same manner as after the first examination.

This second office action is usually made 'final'. In making such final rejection, the examiner repeats or states all grounds of rejection considered applicable to the claims in the application.

When an office action is final, the applicant's response is then limited. The applicant's choices are generally one of the following:

- decide to abandon the application
- convince the Examiner to allow the application through a request for reconsideration
- appeal the final rejection to the appropriate party
- file a continuing patent application which will allow the examination to continue.

In responding to the final office action, the applicant must remember that a 6-month deadline will be established, just as in the first office action. If the applicant, in consultation with her/his attorney, believes the invention is not patentable, the application should be abandoned. Alternatively, the applicant may request reconsideration from the Examiner but such a request must be made early and must include arguments or amendments which place the application in position for an allowance. The applicant must then wait for a response to the request for reconsideration, but the applicant cannot allow more than 6 months to pass, from the date of final rejection.

The applicant may wish to appeal the examiner's rejection to the Board of Patent Appeals and Interferences in the Patent and Trade mark Office. The Board of Patent Appeals and Interferences consists of the Commissioner of Patents and Trade marks, the Deputy Commissioner, the Assistant Commissioners and the examiners-in-chief, but normally each appeal is heard by only 3 members.

An appeal fee is required and the applicant must file a brief to support his/her position. An oral hearing will be held if requested upon payment of the specified fee.

If the decision of the Board of Patent Appeals and Interferences is adverse to the applicant, an appeal may be taken to the Court of Appeals for the Federal Circuit, or a civil action may be filed against the Commissioner in the United States District Court for the District of Columbia.

The Court of Appeals for the Federal Circuit will review the record made in the Office and may affirm or reverse the office's action. In a civil action, the applicant may present testimony in court and the court will render a decision.

As an alternative to an appeal, in situations where an applicant desires consideration of different claims or further evidence, a continuing patent application may be filed.

The new application requires a filing fee and should submit the claims and evidence for which consideration is desired. If it is properly filed before expiration of the 6-month period specified in the final office action, the applicant will be entitled to the earlier filing date for subject matter common to both applications. Under recently adopted changes to the patent rules, some continuing patent applications will keep the same filing date and serial number as the original application.

If a patent application is found to have met the requirements for patentability, a notice of allowance will be sent to the applicant's patent attorney. Once the notice of allowance is received, the applicant needs to pay the issue fee and the maintenance fees. All utility patents which are issued from applications filed on and after 12 December 1980, are subject to fees which must be paid to maintain the patent in force. These fees are due at 3-1/2, 7-1/2 and 11-1/2 years from the date the patent is granted and can be paid without a surcharge during the 'window-period' which is the 6-month period preceding each due date, e.g., 3 years, to 3 years and 6 months, et cetera. The maintenance fees may be paid not later than 6 months after the due date, with the payment of a surcharge. Failure to pay the current maintenance fee on time may result in expiration of the patent.

A flow diagram illustrating the USA patent application procedure is attached as Annexure 7.

4.2.4.4 Interferences

Unique to the US patent system is the interference proceedings allowed to third parties. The application of the provision of the United States Patent law, that subject to certain limitations a patent should be awarded to the first-to-invent rather than the first-to-file a patent application, is most frequently encountered in interference proceedings. 35 USC 102(g), the provision enacting the first-to-invent rule, provides that a patent cannot be validly granted if, before the applicant's invention thereof the invention was made in this country by another who has not abandoned, suppressed or concealed it.

The Act provides that whenever an application is made for a patent which, in the opinion of the Director, would interfere²¹² with any pending application or with any unexpired patent, interference may be declared and the Director shall give notice of such declaration to the applicants or applicant and patentee, as the case may be.

The Board of Patent Appeals and Interferences shall determine questions of priority of the inventions and may determine questions of patentability. Any final decision, if adverse to the claim of an applicant, shall constitute the final refusal by the Patent and Trade mark Office of the claims involved, and the Director may issue a patent to the applicant who is adjudged the prior inventor. A final judgment adverse to a patentee from which no appeal or other review has been or can be taken or had, shall constitute cancellation of the claims involved in the patent. Notice of such cancellation shall be endorsed on copies of the patent distributed after such cancellation by the USPTO.

A defence to an infringement action on the ground of prior invention by another is still only possible in cases where the prior invention was in the United States. The 1999 change in the law permitting reliance on inventions made abroad is confined to situations where both parties have US patents or patent applications and do not apply to a simple plea of invalidity in an infringement case where the defendant has no patent or application itself.

4.2.4.5 Statutory invention registration

Another unique registration to the US patent system is that of Statutory Invention Registrations (SIRs).

The Director is authorised to publish a statutory invention registration²¹³ containing the specification and drawings of a regularly filed application for a patent without examination if the applicant meets certain requirements.

This type of invention is where the patentee has waived the right to receive a patent on the invention and has paid application, publication, and other processing fees to the USPTO. SIRs are often used as a formal route for publishing prior art in the USA.

If an interference is declared with respect to such an application, a statutory invention registration may not be published unless the issue of priority of invention is finally determined in favour of the applicant.

²¹² U.S.C. Section 135

²¹³ U.S.C. Section 157

4.3 Patentability

4.3.1 China

In terms of Article 22 of the Revised Law, to be granted a patent, an invention or utility model shall be novel, inventive and practically applicable. The term 'practically applicable' means that the invention or utility model can be manufactured or used and can generate a positive effect.²¹⁴

4.3.1.1 Novelty

There has been quite a severe change under the Patent Law of 2009 with regards to novelty requirements.

Previously novelty requirements were that before the date of filing, no identical invention or utility model had been publicly disclosed in publications in the country or abroad, or had been publicly used or made known to the public by any other means in the country; nor had any other person filed previously with the Patent Administration Department under the State Council, an application which described the identical invention or utility model and was published after the said date of filing.²¹⁵

The new Implementing Rules discard the old definition of 'prior art'. This is consistent with possibly the most dramatic change of switching to absolute novelty standard in the Revised Law. This change has been widely welcomed by foreign IP owners.²¹⁶

Under the previous Article 30, prior public use or other non-publication means of prior disclosure outside China was not considered prior art and therefore did not constitute a novelty bar.

As such, one was able to obtain a Chinese patent by copying an invention seen, for instance, at an exhibition in a foreign country. Under the Revised Law 'prior art' means the art known to the public inside and/or outside China before the filing date.

²¹⁴ See China Law & Practise, May 2010 Issue, "PRC Revised Law (3rd Revision)", to be viewed at <http://www.chinalawandpractice.com/Article/2097421/Issue/8508/PRC-Patent-Law-3rd-Revision.html?ArticleID=2097421&Type=Issue&ID=8508&RuleUsed=PageArticle> (Last visited as subscriber on 8 June 2010)

²¹⁵ Major changes in the third revision to the PRC Patent Law, Freshfields Bruckhaus Deringer LLP, February 2009 Newsletter, to be viewed here <http://www.freshfields.com/publications/pdfs/2009/feb09/25150.pdf> (Last visited on 7 June 2010)

²¹⁶ The Wall Street Journal (On-line) Patent Reform With Chinese Characteristics, Beijing's amended intellectual property law holds dangers. 10 Feb 2009, to be viewed at <http://online.wsj.com/article/SB123419814824764201.html> (Last visited on 5 June 2010)

4.3.1.2 Inventiveness

An invention is deemed inventive if, compared with the technology existing before the filing date of the application, the invention has prominent and substantive distinguishing features and represents a marked or distinctive improvement.

4.3.1.3 Grace period

Novelty will not be destroyed if, within 6 months before the date of filing, the invention was exhibited for the first time at an international exhibition sponsored or recognised by the Chinese Government; it was made public for the first time at a prescribed academic or technical conference; or it was disclosed by any person without the consent of the applicant. This was retained in the Revised Act in Article 24²¹⁷ with some further clarification provided by the new Article 30 of the Implementing Rules. These Rules clarify that international exhibitions recognised by the Chinese government are those that are registered at, or recognised by the BIE (Bureau of International Expositions) pursuant to the Convention Relating to International Exhibitions.²¹⁸

4.3.2 Japan

For a patent to be granted, the invention must be novel, inventive and have industrial applicability. The latter does not have statutory definition but is interpreted that it should be possible for the invention to be applied for industrial uses on a practical industry scale.

4.3.2.1 Novelty

Although the requirement of novelty²¹⁹ is not directly defined, Article 29 (1) lists the cases where novelty is lost.²²⁰ Knowledge or act, including internet publication outside Japan will be a novelty bar. A claimed invention lacks novelty if it is 'publicly known or publicly used in Japan or foreign country'.²²¹

²¹⁷ Article 24: An invention or creation for which a patent application is filed shall not lose its novelty should any of the following circumstances have arisen six months before the filing date: (1) it was exhibited for the first time at an international exhibition organised or recognised by the Chinese government; (2) it was disclosed for the first time at a specified academic conference or technology conference; or (3) a third party divulged details thereof without the consent of the applicant.

²¹⁸ CONVENTION RELATING TO INTERNATIONAL EXHIBITIONS SIGNED AT PARIS ON 22ND NOVEMBER 1928, AND SUPPLEMENTED BY THE PROTOCOLS OF 10TH MAY 1948, 16TH NOVEMBER 1966, 30TH NOVEMBER 1972 AND THE AMENDMENT OF 24TH JUNE 1982 AND THE AMENDMENT OF 31ST MAY 1988 that sets out the General Conditions governing the Organisation of International Exhibitions

²¹⁹ The 1999 Amendments to the Patent Law in Japan, By Dr. SHOICHI OKUYAMA, Patent Attorney, found at http://www.okuyama.com/1999_amend_JP_pat_law.htm (Last visited on 22 Oct 2009)

²²⁰ Intellectual Property Protection in JAPAN, by Prof. Kazuo Iwasaki Nagoya (a Professor at Law – CV available on http://www.siac.org.sg/Pdf/cv/cv_Kazuolwasaki.pdf) from the University GSID, http://homepage3.nifty.com/Prof_K_Iwasaki/lawdb/japan/invstmnt/intpp-en.html#PAT (Last visited on 7 June 2010)

²²¹ Section 29(1), Patent Law of Japan

Under the Patent Law an invention lacks novelty if it is publicly known in Japan or in any foreign country; publicly used in Japan or in any foreign country or described in a distributed publication or become publicly available through electric telecommunication lines in Japan or in any foreign country. An invention disclosed through the internet will be treated in the same way as that described for a printed publication.²²² To Section 29 concerning novelty, as well as Section 30 concerning exceptions to the loss of novelty, the following provisions were added: 'invention which was described in distributed publication or became available to the public through electric telecommunication circuits.'

4.3.2.2 Inventiveness

Although the requirement of inventive steps or inventiveness is not directly defined,²²³ Article 29 (2) stipulates that if a person who has standard knowledge ('ordinary skill in the art') in the given field of technology could have easily made such an invention before the application, based on the invention which has been publicly known or publicly implemented in Japan, or published in Japan or abroad, the invention is not patentable.

4.3.2.3 Grace period

Article 30 provides a 6-month grace period for disclosures made through an experiment, publication, presentation at a study meeting, an exhibition, or if the invention becomes known to the public against the applicant's will. Such disclosures do not form part of the prior art. This is in line with the European patent law but is significantly narrower than that provided by the United States patent law.

4.3.3 Europe

For patentability under the EPC, claims must show both novelty and inventive step over the prior art and must define an invention which is capable for industrial application.²²⁴

It is to be noted that certain subject matter is excluded from patenting. This is defined in Article 53(a) read together with Rules 28 and 29 of EPC.

²²² Thompson Reuters publication (book), July 2007, "Transforming intellectual property in Japan", Professor Ruth Taplin, be found at <http://scientific.thomsonreuters.com/img/knowledgelink/8398180/8398184/japan.pdf> (Last visited 25 June 2010)

²²³ Article 29(2) (non-Official English translation) of Japanese Patents Act to be found at <http://web.archive.org/web/20041012012742/http://www.jpo.go.jp/shoukaie/patent.htm#29> (Last visited 25 June 2010)

²²⁴ See the *Supra* Monsanto ECJ case wherein it was found that an European patent can only be relied on in relation to an invention which actually performs the function for which it is patented

'European patents shall not be granted in respect of: (a) inventions the commercial exploitation of which would be contrary to "order public" or morality; such exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation in some or all of the Contracting States; b) plant or animal varieties or essentially biological processes for the production of plants or animals; this provision shall not apply to microbiological processes or the products thereof; (c) methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body; this provision shall not apply to products, in particular substances or compositions, for use in any of these methods.'

4.3.3.1 Novelty

Considering novelty, the EPC, like most other patent law systems worldwide, adopts the principle of absolute novelty for identifying prior art.²²⁵

The test for novelty is an objective one; every feature of the independent claim must be present in a single item of prior art for that item of prior art to deprive the claim of novelty. It is important to bear in mind that a particular prior art reference may not necessarily constitute a single 'item'. For example, a comprehensive reference work will contain wholly unconnected disclosures in different parts and under these circumstances, the unconnected disclosures cannot be combined to make a single 'item'.

Another one of the amendments of the EPC 2000 is the complicated extension of the novelty principle.²²⁶

This lies in the notion of 'elder European rights' which was introduced to preclude double patenting and is defined by Article 54(3) EPC 2000, where a European (or a Euro-PCT) patent application with an earlier priority date disclosing the same subject-matter, and validly published after the filing date of a later-filed European application will serve as a bar to novelty, but not inventive step. Therefore obvious equivalents to any claimed features in the earlier application are not comprised in the state of the art.

²²⁵ Article 54.2 EPC (Article 54.1 and Article 54.2 EPC 2000 retain the same wording as their counterpart provisions in the EPC 1973).

²²⁶ IP Management, Supplement – Germany and EPO IP FOCUS 2008 Impact of the EPC 2000: The ABCs of the EPC 2000, 01 Apr 2008, Dr Martin Grund and Dr Stacey J Farmer of Grund "IP Group give a practical guide to the newly revised European Patent Convention" to be viewed at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1902704&issueID=...> 2008/05/26 (Last visited on 4 June 2010)

Previously, an elder European right only imparted this prior art effect for designated states overlapping with the later application if the designation fees were validly paid.²²⁷ A typical result was different sets of claims for different designated states in view of different prior art – a confusing state of affairs. The EPC 2000 mercifully abolishes this complex situation by eliminating the above provisions altogether. This has the implication now that an earlier filed and validly published European patent application captured by the provisions of A54 (3) will constitute prior art for novelty purposes only, against later-filed European applications in all EPC contracting states, not just those jointly designated in both applications. Importantly, Article 54(3) EPC 2000 will not retroactively apply to validly pending European applications (including Euro-PCT applications) and European patents granted before or on the date²²⁸ when EPC 2000 came into force.

4.3.3.2 Inventiveness

The test for inventive step is a more subjective one. Chapter IV, Part C²²⁹ of the Examination guidelines for the EPO defines obviousness as follows: *‘Thus the question to consider, in relation to any claim defining the invention, is whether before the filing or priority date valid for that claim, having regard to the art known at the time, it would have been obvious to the person skilled in the art to arrive at something falling within the terms of the claim. If so, the claim is not allowable for lack of inventive step.’*

The term ‘obvious’ means that which does not go beyond the normal progress of technology but merely follows plainly or logically from the prior art, i.e. something which does not involve the exercise of any skill or ability beyond that to be expected of the person skilled in the art.²³⁰

In considering inventive step, as distinct from novelty (see Chapter IV, 9.3), it is fair to construe any published document in the light of subsequent knowledge and to have regard to all the knowledge generally available to the person skilled in the art, the day before the filing or priority date valid for the claimed invention.

²²⁷ Article 54.4 and Rule 23a EPC 1973

²²⁸ 13 December 2007

²²⁹ Section 11.4

²³⁰ A person skilled in the art is however defined differently in the various EU jurisdictions. The EPO's normal approach to questions of obviousness is first to determine the closest single piece of prior art and then ask whether the solution to the problem of leaping from that piece of art to the claimed invention was obvious to one skilled in the art; the German Patent Act (*Patentgesetz*) requires that the invention "cannot be derived by a *Fachmann* from the state of the art in an obvious manner"

In order to provide greater legal certainty, the EPO rigorously applies the ‘problem and solution’ approach²³¹ in determining the question of inventive step.

The problem as solution approach is a little complicated, but essentially the problem and solution approach can be explained as follows. The problem and solution approach can be applied when 2 items of prior art are required to deprive an independent claim of inventive step. An analysis of the features of the claim is carried out to determine which feature (or features) of the claim is not disclosed in the primary prior art reference. If that feature can be found in the secondary prior art reference and if, in the secondary prior art reference, that feature exhibits the same technical effect as it does in the claimed invention, then on the face of it the claim lacks inventive step. However, the question is then, ‘would it be obvious to a person skilled in the art to modify the teaching of the primary prior art reference by the incorporation of the expedient, identified in the secondary prior art reference in order to obtain the improved technical effect of the combination defined in the claim in question?’ The treatment of inventive step under the EPC is, of course, complex and varied and indeed volumes have been written on the subject. There are various EPO decisions illustrating the application of this doctrine. This however goes beyond the scope of this paper.

4.3.3.3 Grace period

If the invention has become publicly available in any way before the patent application was filed, the application will be rejected (Article 54 EPC).

‘Publicly available’ includes selling the invention, giving a lecture on it, showing it to an investor without a non-disclosure agreement (NDA), publishing it in a magazine, and so on. It does not make a difference whether the person making it publicly available is the inventor, one of the inventors, or an independent third party.

There is thus no grace period for a disclosure deemed publicly available before the application filing date (or priority date as applicable).

4.3.4 USA

In order for an invention to be patentable, it must be statutory, new, useful and non-obvious as defined in the patent law. Novelty and obviousness are discussed below.

²³¹ http://www.epo.org/patents/law/legal-texts/html/guiapp1/e/ga_b_iii.htm (Part I, Chapter BIII of Guide for Applicants, Section 36 and 37) (Last visited on 25 June 2010)

The Statutory requirement in terms of the Act states that processes, machines, articles of manufacture, and compositions of matter are patentable. This wording appears to cover every useful invention imaginable. However, there are certain 'inventions' which are not patentable under the Patent Act. The USPTO has issued certain guidelines that include a flowchart²³² that Examiners should use when evaluating inventions for subject matter eligibility.

On usefulness, this refers to the condition that the subject matter has a useful purpose and includes operativeness; that is, a machine which will not operate to perform the intended purpose would not be called useful and therefore would not be granted a patent. In most cases, the usefulness requirement is easily met in computer and electronic technologies.²³³

4.3.4.1 Novelty

The novelty requirements as defined in the US Patent Act sets forth the general requirements for a patent²³⁴ and are rather complex.²³⁵ It often requires a detailed analysis of the facts and the law.

In essence an invention cannot be patented if certain public disclosures of the invention have been made and the Act basically defines that an invention will not normally be patentable if:

- the invention was known to the public before it was 'invented' by the individual seeking patent protection
- the invention was described in a publication more than 1 year prior to the filing date
- the invention was used publicly, or offered for sale to the public more than 1 year prior to the filing date.

²³² See <http://www.bitlaw.com/source/uspto/FlowChart.jpg> (Last visited on 4 June 2010)

²³³ See for example *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368 (Fed. Cir. 1998) the Federal Circuit court held that "The court has identified three categories of subject matter that are unpatentable, namely laws of nature, natural phenomena, and abstract ideas.

²³⁴ Section 101 of the U.S. Patent Act See <http://www.bitlaw.com/patent/requirements.html> (BitLaw is a comprehensive Internet resource on technology and intellectual property law. The site contains complete copies of the United States Patent, Copyright, and Trade mark statutes, as well as the relevant regulations from the Code of Federal Regulations. BitLaw also includes converted versions of the TMPEP and MPEP (the office manuals created by the United States Trade mark and Patent Offices, respectively). Each of these documents includes links to the relevant statutory and regulatory sections. Finally, BitLaw contains a great deal of custom written descriptions of how these areas of the law affect the computer and technology industries.)

²³⁵ See 35 U.S.C. Section 102

4.3.4.2 Inventiveness

For an invention to be patentable, it must not only be novel, but it must also be a non-obvious improvement over the prior art.²³⁶ This is quite different from the EPC requirements.²³⁷ This determination is made by deciding whether the invention sought to be patented would have been obvious ‘to one of ordinary skill in the art.’ In other words, the invention is compared to the prior art and a determination is made whether the differences in the new invention would have been obvious to a person having ordinary skill in the type of technology used in the invention. In a paper²³⁸ by Cecil D. Quillen, Jr. the US patent office system is criticised for the low standards set for inventiveness and the ease with which US patents are granted without having to overcome any difficult inventiveness arguments; this leads to thickets of patents granted that are of little value. A change has been brought about by the *KSR Int’l Co. v. Teleflex, Inc.*, 550 US 398 (2007) case wherein the Court found that the Court of Customs and Patent Appeals ‘captured a helpful insight’ in establishing the ‘Teaching, Suggestion, or Motivation’ (TSM) test but that ‘*helpful insights . . . need not become rigid and mandatory formulas; and when it is so applied, the TSM test is incompatible with our precedents.*’

The USPTO Board of Patent Appeals and Interferences (BPAI) is citing *KSR* in about 60 per cent of its decisions related to obviousness, irrespective of whether it affirms a patent examiner's rejection or reverses the rejection.²³⁹

Overall reversal rates have remained about the same, indicating that *KSR* has not suddenly made all inventions obvious. The BPAI is emphasising that examiners must still provide strong reasons for their rejections.

The USPTO management has backed this emphasis with a memorandum to all technology directors instructing them that when making an obviousness rejection ‘it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed’.

²³⁶ Reference is to be made to *KSR International v. Teleflex Inc.* - No. 04-1350, 550 U.S. (2007) to be found at <http://www.law.cornell.edu/supct/html/04-1350.ZS.html> (Last visited on 4 June 2010)

²³⁷ See the subsection Validity of Patents under the subsection Europe in this Chapter

²³⁸ *INNOVATORS, INNOVATION, AND THE U.S. PATENT SYSTEM*, Cecil D. Quillen, Jr., 2002 to be found at <http://www.ftc.gov/os/comments/intelpropertycomments/innovators2002.pdf> (Last visited on 4 June 2010)

²³⁹ Nowotarski, Mark, “Using *KSR* to Overcome an Obviousness Rejection”, *Intellectual Property Today*, September 2007 to be viewed at <http://www.iptoday.com/articles/2007-09-nowotarski.asp> (Last visited on 4 June 2010)

The USPTO published examination guidelines (the 'Guidelines') to assist office personnel in making a proper determination of patentability of claims under the obviousness standard of 35 U.S.C. § 103 on 10 October 2007.²⁴⁰

The Guidelines note that the controlling inquiries in an obviousness analysis are the factors outlined in *Graham v. John Deere Co.* US 1, 15 – 17 (1966) and reiterated in *KSR*. The factual inquiries required are:

- a) Determining the scope and content of the prior art
- b) Ascertaining the differences between the claimed invention and the prior art
- c) Resolving the level of ordinary skill in the pertinent art.²⁴¹

Prior to these Guidelines, the USPTO required that to establish a prima facie case of obviousness of a claim, Office personnel had to show some 'teaching, suggestion, or motivation' (TSM) in the prior art, to combine or modify prior art teachings.

35 U.S.C. Section 103 defines the requirements for obviousness in the guidelines as follows:

'(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102²⁴² of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be affected by the manner in which the invention was made.

(b) (1) Notwithstanding subsection (a), and upon timely election by the applicant for patent to proceed under this subsection, a biotechnological process using or resulting in a composition of matter that is novel under section 102 and non-obvious under subsection (a) of this section shall be considered non-obvious if—

(A) claims to the process and the composition of matter are contained in either the same application for patent or in separate applications having the same effective filing date; and

²⁴⁰ Notice, 72 Fed. Reg. 57526 (Oct. 10, 2007) available at <http://www.uspto.gov/web/offices/com/sol/notices/72fr57526.pdf> (Last visited on 4 June 2010)

²⁴¹ See Notice, 72 Fed. Reg. 57527 (Oct. 10, 2007) available at <http://www.uspto.gov/web/offices/com/sol/notices/72fr57526.pdf> (Last visited on 4 June 2010)

²⁴² The Novelty requirements

(B) the composition of matter, and the process at the time it was invented, were owned by the same person or subject to an obligation of assignment to the same person.

(2) A patent issued on a process under paragraph (1)—

(A) shall also contain the claims to the composition of matter used in or made by that process, or

(B) shall, if such composition of matter is claimed in another patent, be set to expire on the same date as such other patent.'

4.3.4.4 Grace period

The USA has a 1-year grace period.²⁴³ This means that the inventor can freely publish his invention without losing patent rights. This 'statutory bar' is unforgiving, which means that an inventor who does not file for patent protection on their new invention within this 1-year grace period will lose all right to obtain patent protection on the invention. However, this only applies to the USA. Most other countries do not grant such a period. Therefore it is almost always preferable to file a patent application before any public disclosure of the invention, especially where foreign filings are intended as part of a foreign patent filing strategy.

5 Enforcement of IP Rights in China, Japan, Europe and USA

An effective intellectual property right system is important because it provides confidence to business that rights will be respected and that profits will be returned to IPR holders when goods and services are traded in the region. Strong IPR systems boost economic growth, promote investment and develop industries that promote creativity and innovation.

5.1 China

5.1.1 Scope of infringement

As in most other jurisdictions a patentee may only institute an action for patent infringement against a 3rd party once a patent has been granted.

In terms of Article 11 of the Revised Law, once an invention patent or utility model patent has been granted, no one may exploit such a patent without a licence from the patentee, unless otherwise provided in this Law,²⁴⁴ i.e. no one may:

²⁴³ 35 US Code section 102

²⁴⁴ See reference to compulsory licensing later in this Chapter

- make, use, offer to sell, sell or import the patentee's patented product for production or other business purposes
- use the patentee's patented process
- use, offer to sell, sell or import products directly obtained through the application of such patented process.

The 2000 Patent Law brought about the product by process patent extension, i.e. products directly obtained by a patented process are also protected in China by such a process patent. The Law was however not clear on what direct products were. Under the Revised Law the product by process provision was retained.

The SPC, on 28 December 2009, promulgated the Interpretation Guidelines²⁴⁵ effective from 01 January 2010, to assist with the implementation of the relevant laws for enforcement of intellectual property rights, such as the *PRC Patent Law*, the *PRC Civil Procedure Law*, taking into account trial realities in order to correctly try patent infringement disputes.

Direct Products are now defined in terms of Article 13 of the Judicial Interpretation, as the act of further processing a product obtained through a patented process would be considered using a product directly obtained through the patented process, and therefore constitutes patent infringement. In practice, this Article would allow companies, such as pharmaceutical companies, to sue with evidence of a final product where a process patent covers an intermediary that was used in making the final product.

The further importance of the Guidelines is that for the first time the SPC confirmed its approach to patent claim interpretation, i.e. the primacy of the understanding of a person skilled in the art, taking into account the content of the description and any drawings in the patent specification: i.e. defined terms are to be given the literal defined meaning before consulting any external sources to the patent specification.

As such the skilled person needs to answer the question of what s/he believes the patentee meant. As such this may lead to greater use of technical experts in cases where claim interpretation is ambiguous.

²⁴⁵ China Law & Practise, Feb 2010 Issue, "Interpretation on Several Issues Concerning the Application of the Law in Trials of Patent Infringement Disputes" to be viewed by subscribers
<http://www.chinalawandpractice.com/Article/2383006/Channel/9937/Interpretation-on-Several-Issues-Concerning-the-Application-of-the-Law-in-Trials-of-Patent.html> (Last visited on 8 June 2010)

The Guidelines formally introduced prosecution history/file wrapper estoppel.²⁴⁶ This entails in essence that matter disclaimed during patent prosecution or invalidity disputes may not be re-asserted in later infringement proceedings.

This in itself will open up a whole new strategy of attack for a litigant seeking invalidity of a patent, or to defend against a claim of infringement.

The Guidelines now provide clarification on the new 'prior art' defence²⁴⁷ and confirm the existing defence of 'prior use'.²⁴⁸ This prior art defence provides²⁴⁹ that if all technical features of the accused technical scheme falling within the scope of the claimed patent, are identical to corresponding technical features of a prior technical scheme, or have no substantive difference from the corresponding technical features of a prior technical scheme, the court shall determine that the accused technical scheme is a prior art.²⁵⁰

The alleged infringer may assert the prior art as a statutory defence to infringement without the requirement to assert the prior art to demonstrate invalidity of the patent, as is required under current Chinese and US patent laws. Such a provision change is being considered in currently pending US patent reform legislation.²⁵¹

It remains to be seen whether this defence could be applied retroactively, where an invention used or known abroad before its Chinese filing date is not prior art under the current patent law but is under the Revised Law. It is not clear yet whether such foreign public use or knowledge may constitute a prior art defence to patents granted under the current law.

Regarding the prior use defence,²⁵² the new judicial interpretation provides that if before the filing date of the patent, a user (1) has completed the main technical drawings or process document necessary for implementing the invention-creation, or (2) has manufactured or bought the main device(s) or raw material(s) necessary for

²⁴⁶ Article 6 of the Interpretation Guideline provides that if a patent applicant or patentee relinquished a technical solution through the revision of a claim or of the description or through a statement of opinions during the patent prosecution or an invalidation procedure and the rights holder seeks to include the same within the scope of patent protection in a patent infringement dispute, the people's court shall deny the same.

²⁴⁷ China Law and Practise, February 2010 Issue, "Interpreting the PRC Patent Law" to be viewed at <http://www.chinalawandpractice.com/Article/2384625/Channel/9937/Interpreting-the-PRC-Patent-Law.html> (Last visited on 10 June 2010), also see China Patents and Trade Marks Journal, No 3, 2007, pp 52-63, "Prior art defence against patent infringement allegation in China", Wu Yuhe, see <http://www.cpt.cn/uploadfiles/20100316131011501.Pdf> (Last visited on 10 June 2010)

²⁴⁸ See Freshfields Bruckhaus Deringer brief entitled "Overview of recent reform of PRC Law", March 2010, <http://www.freshfields.com/publications/pdfs/2010/Mar10/27781.pdf> (Last visited on 5 June 2010).

²⁴⁹ Article 62 with Articles 22 – 23 of the Interpretation Guidelines

²⁵⁰ Note that the prior art definition here should be in accordance with the new absolute novelty requirement in Articles 22 and 23.

²⁵¹ Intellectual Property and Communications Omnibus Reform Act of 1999, a good summary of the bill is available on the Laddas & Parry website at <http://www.laddas.com/Patents/PatentPractice/USPractice/USPatLawRevisions-Contents.html> (Last visited on 11 June 2010)

²⁵² Article 15 of the Interpretation Guidelines (and Article 69 of the Revised Law)

implementing the invention-creation, the court shall affirm 'having already made necessary preparations for its making or using' as provided in Article 69(2), which means that no infringement should be determined if the prior use is being kept within the original scope.

The original scope provided in Article 69(2) includes the original manufacture scope and the manufacture scope that may approach by using the device(s) or preparation that the user has already had before the filing date of the patent application.

A further defence introduced in the Revised Law is the Exhaustion of patent rights.²⁵³ The intention is that such exhaustion is international as is shown by the fact that one of the rights deemed to be exhausted, is that to prevent importation of the patented product or the direct product of a patented process. Article 69, Section 1 of the Revised Law provides that none of the following shall be deemed an infringement of the patent right: (I) Where, after the sale of a patented product that was made or imported by the patentee or with the authorisation of the patentee, or of a product that was directly obtained by using the patented process, any other person uses, offers to sell, sells or imports that product. The practical result of the amended language is to provide for international exhaustion of patent rights.

There are no provisions preventing a patentee from making unjustified threats of infringement. However, should the patentees' threats cause harm to a party's reputation or goodwill, the injured party may seek remedies by relying on general civil tort²⁵⁴ procedures. Furthermore, in theory, a cease and desist letter may trigger the right to seek a declaration of non-infringement and a potential defendant might thereby inhibit the patentee from selecting a forum for an infringement action.

5.1.2 Enforcement system

IP legal proceedings and enforcements in China are complicated. Fundamentally China's IPR enforcement regime relies on a 3-strand approach comprising administrative, criminal and judicial (civil) protection.²⁵⁵

²⁵³ Under the exhaustion doctrine, doctrine of exhaustion, or first sale doctrine, the first unrestricted sale of a patented item exhausts the patentee's control over that particular item. It generally is asserted as an affirmative defence to charges of patent infringement, but less commonly is asserted affirmatively in a declaratory judgment action.

²⁵⁴ In the past, tort law mainly aims at protecting rights; but now, intellectual property and some personal rights are also protected by the Law. The Tort Liability Law of the People's Republic of China was adopted at the 12th session of the Standing Committee of the Eleventh National People's Congress on 26 December 2009, and shall come into force on 1 July 2010 (See China Brief Magazine, "China Passes Tort Liability Law", 28 Dec 2009, on-line at <http://www.china-briefing.com/news/2009/12/28/china-passes-tort-liability-law.html> (Last visited on 13 June 2010)

²⁵⁵ United Kingdom Patent Office Website, www.ipo.gov.uk, Presentation entitled "China - An Enforcement Roadmap", April 2007, to be viewed here <http://www.ipo.gov.uk/chinaroadmap.pdf> (Last visited on 4 June 2010)

Each strand concerns particular Governmental bodies which carry out IPR enforcement actions only by way of the single strand of approach they deal with. So an enforcer patentee will have to decide which is the most appropriate strand or combination of strands to use, which can then help to identify the right Governmental bodies to use. Identifying an appropriate administrative route for enforcing IP rights in China is often confusing because there are so many government agencies focused on aspects of IPR protection.

The major players in administrative enforcement are the State Administration for Industry and Commerce (SAIC), the State Intellectual Property Office (SIPO), the Technology and Science Bureau (TSB), the administration for Quality Supervision, Inspection and Quarantine (Aqsiq) and the National Copyright Administration (NCA). Other agencies, such as the State Drug Administration or the Ministry of Culture may also play a role in the enforcement process.

The most prevalent system for IPR enforcement is the administrative strand,²⁵⁶ whereby an IP rights holder files a complaint at the local administrative office.

The second is the judicial track, whereby complaints are filed through the court system.²⁵⁷

The Ministry of Public Security (MPS) is the only agency that operates using the Criminal Strand and it is placing more and more importance on IP crime. The MPS employs 2 key arms: The Economic Crime Investigation Department (ECID) and The Public Security Bureau. They have responsibilities that run alongside one another, the division of work however is clear. The ECID works on trade mark infringements, and on breaches in relation to patents and to commercial secrets, while the Public Security Bureau works against copyright crime. The MPS using the Criminal Strand works well alongside the Administrative Strand of the system. Most cases are dealt with through the Administrative Strand except serious, complicated or aggravated infringement cases which are taken up by the MPS.

²⁵⁶ China Law & Practise, "Guarding your IP and enforcing your rights", May 2010 Issue, to be viewed at <http://www.chinalawandpractice.com/Article/2484373/Channel/9937/Guarding-your-IP-and-enforcing-your-rights.html> and see also United Kingdom Patent Office Website, www.ipo.gov.uk, Presentation entitled "China - An Enforcement Roadmap", April 2007, to be viewed here <http://www.ipo.gov.uk/chinaroadmap.pdf> (Last visited on 4 June 2010) (Last visited on 4 June 2010)

²⁵⁷ IP Management Supplement – China IP Focus 2008 6th Edition Build assets today for business tomorrow, 01 Apr 2008, Esther H Lim, Ningling Wang, and Tina E Hulse of Finnegan Henderson - <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1915362&issueID=> (Last visited on 4 June 2010)

The MPS has a proactive approach. For example, if offenders are found to have previous offences on record, then financial thresholds are ignored. In addition it pays no concern to the national origins of suspects. A brief overview of the judicial system is provided in Annexure 8.

5.1.2.1 Administrative strand

The State Intellectual Property Office (SIPO) handles administrative enforcement in addition to its role in patent registration and administrative recognition of patent rights.

A request for an administrative investigation of potentially infringing behaviour starts²⁵⁸ at the local SIPO where the infringing activity is believed to be taking place. SIPO has an office in each of China's administrative regions and was established with the intention that it would co-ordinate China's IP enforcement efforts by merging the patent, trade mark, and copyright offices into one authority. Today, SIPO is responsible for granting and enforcing patents and semi-conductor layout designs, and also retains a co-ordinating role for certain cross-cutting intellectual property policy issues.

Possible administrative remedies include:

- Injunctions
- Mediation upon the request of the parties
- Cease and desist orders
- Confiscation of illegal earnings
- Fines of up to 50,000 RMB (about \$6,000).

In serious cases, SIPO may also refer a matter for criminal prosecution. Fines and other administrative actions imposed by SIPO may be appealed to the People's Intermediate Courts. Commentators frequently lament SIPO's lack of written or published decisions, the corresponding unavailability of information for non-parties, and the fact that decisions or findings of fact made by one SIPO office may not carry any weight in others.

²⁵⁸ http://www.wangandwang.com/china_enforcement.htm (Last visited on 4 June 2010)

In general, administrative actions can be quick and fairly cost-effective. Although administrative agencies usually cannot directly award monetary remedies to an IP owner, they can fine IP infringers, seize infringing goods and equipment used in the manufacture of infringing goods, and inform an IP owner of the source of goods being distributed. For more effective relief one would combine the administrative strand with a civil strand, and/or the criminal strand.

5.1.2.2 Criminal strand

Criminal proceedings may proceed in parallel with civil proceedings and are instituted following a complaint by the patentee to public security department, the procurator or the court itself.²⁵⁹ China has implemented provisions in its law in compliance with the provision of TRIPS,²⁶⁰ already in 1995 and with the 2000 (Article 58) and 2009 (Article 63) Acts expanded this to include provisions for passing off. Passing off a product or process as the patented product or process of others is a criminal offence and its perpetrator shall be prosecuted for criminal liability.

To combat the growing threat of IP Crime the Chinese government has shifted emphasis away from the development of legislation and towards how current legislation can be effectively enforced. The SPC and the Supreme People's Procuratorate (SPP) issued judicial interpretation on intellectual property crimes in December 2004. It sets out detailed standards for determining whether trade mark counterfeiting may be pursued as a criminal offence. It contains new standards for criminal liability for infringement of copyrights and trade secrets, as well as for the passing off of patents.²⁶¹

Instances of civil and criminal litigation have been increasing and may eventually be a better tool to deter infringement than has been the case in the past.

²⁵⁹ See the Revised Patent Law Article 63 and China Criminal Procedure Law (Offences of trade mark and copyright infringement are defined under Articles 213, 214, 215, 216, 217 and 218 of the Criminal Law; Criminal sanctions are provided under these Articles when, for instance, the circumstances of the offence are serious or the amount of sales of infringing commodities is relatively large. The terms "circumstances are serious" and "amount of sales is relative by large" are further quantified by various Judicial Interpretations issued by the Supreme People's Court." Article 216 of the Criminal Law provides for prison terms up to three years and/or a fine against parties that "pass off the patents of another.

²⁶⁰ Article 61 of TRIPS which provides that "Members shall provide for criminal procedures and penalties to be applied at least in cases of wilful trade mark counterfeiting or copyright piracy on a commercial scale..."

²⁶¹ Patent World Magazine, June 2005 Issue, "Drawing the line" and republished by the authors as "Patent counterfeiting in China - will the new Supreme Court guidelines have a positive effect for patent holders?", Robley et al to be viewed on http://www.twobirds.com/English/News/Articles/Pages/Patent_counterfeiting_in_China.aspx; also see China IP Law and Practise, March 2005 Issue, to be viewed at <http://www.chinalawandpractice.com/Article/1692529/Search/New-Criminal-Liability-Standards-for-IP-Crimes-Part-II.html?Keywords=Criminal+liability+for+patent+infringement> (Last visited on 12 June 2010)

In particular, under Chinese Law those involved in IP crime can be convicted of 3 types of crime, i.e. Infringing IP rights under Articles 213-220 (maximum 7 years in prison); production and marketing of fake or substandard goods under Articles 140-150; the production and sales of fake medicines and producing and selling poisonous or harmful foods (maximum lifetime in prison or can be punishable by the death penalty); operating an illegal business (maximum fifteen years in prison). In some cases dual offences can occur (such as trade mark infringement and the production of substandard goods). Dual offending is considered even more serious and is consequently punished more severely.

Criminal proceedings usually last 2 to 3 months before the Prosecutor files an indictment. The criminal penalties with respect to counterfeiting are as follows: (a) for use or sale resulting in substantial gains, not more than 3 years imprisonment and/or fine; (b) for use or sales where illegal income is enormous, not less than 3 years or more than 7 years imprisonment and a fine. All kinds of appropriate evidence discovered in inspections or searches that may be used to prove the guilt or innocence of a defendant may be seized. Products other than those named in a warrant may be seized at the discretion of law enforcement officials.

5.1.2.3 Civil strand

5.1.2.3.1 Jurisdiction

China has established specialised IP panels in its civil court system throughout the country. As stated above, jurisdiction of IP protection is diffused throughout a number of government agencies and offices, with each typically responsible for the protection afforded by one statute or one specific area of IP related law. There may be geographical limits or conflicts posed by one administrative agency taking a case involving piracy or counterfeiting that also occurs in another region. In recognition of these difficulties, some regional IP officials have discussed plans for creating cross-jurisdictional enforcement procedures. China's courts also have rules regarding jurisdiction over infringing or counterfeit activities, and the scope of potential orders.

With the thorough implementation of the Civil Procedure Law following the further improvement and revision of the mechanism for judicial protection of intellectual property, the number of intellectual property cases accepted by the intellectual property division of the Supreme People's Court has continued to rise.

The number of concluded cases has increased substantially and the intellectual property trial supervision and professional guidance functions of the Supreme People's Court have been effectively brought to bear. In 2009 the intellectual property division of the Supreme People's Court accepted a total of 297 various new intellectual property cases which, together with the 143 cases left over from 2008, gives a total of 440 various cases pending, an increase of 33.7 per cent as compared to 2008; and it concluded the trial of 390 various intellectual property cases, an increase of 111.96 per cent as compared to 2008.²⁶²

China has 4 levels of courts, i.e. the Basic People's Courts (BCs) are the lowest level of courts and their judgments are appealable to the Intermediate People's Courts (ICs); judgments issued here are appealable to the Higher People's Courts (HCs) followed by the Supreme People's Court (SPC). The SPC²⁶³ is the highest court in China.

Court proceedings in China generally involve first instance proceedings (which are akin to trials) and second instance proceedings (which are akin to appeals except that both findings of law and fact are reviewable). In rare cases, re-trial can take place after second instance proceedings.

The SPC recently issued 2 Circulars²⁶⁴ expanding the jurisdiction of lower courts in relation to intellectual property cases. Under the new Circulars, HCs will only take first instance jurisdiction in cases where the monetary claim exceeds Rmb200 million (US\$29.3 million), or in cases where the monetary claim is between Rmb100 million and Rmb200 million with at least one of the parties residing outside of the court's jurisdiction or overseas. In essence the changes have the implication that designated BCs will have jurisdiction to be the first instance courts for a significant portion of IP cases. Table 2²⁶⁵ summarises the jurisdiction of first instance cases.

²⁶² China Law & Practice, "Supreme People's Court, Annual Report on Intellectual Property Cases (2009) (Abstract)" to be viewed on <http://www.chinalawandpractice.com/Article.aspx?ArticleID=2483455&Type=Channel&RuleUsed=PageArticle> (Last visited on 7 June 2010)

²⁶³ Extract from Guide to Doing Business in China (April 2008) to be found here <http://info.hktdc.com/chinaguide/8-3.htm> (Last visited on 7 June 2010)

²⁶⁴ The Circular on Revising the Jurisdiction Thresholds for First Instance Civil Intellectual Property Cases at All Levels of Local People's Courts and the Circular Regarding the Announcement of the Jurisdiction of Different Levels of Basic People's Courts Concerning First Instance Intellectual Property Civil Cases. The Circulars were both issued on 28 January 2010 and came into effect on 1 February 2010.

²⁶⁵ China Law and Practice, March 2010 Issue, "Courts get expanded jurisdiction for IP cases" to be viewed at <http://www.chinalawandpractice.com/Article/2443546/Channel/9937/Courts-get-expanded-jurisdiction-for-IP-cases.html> (Last visited on 10 June 2010)

Any cause for action for infringement of a patent prescribes after a period of 2 years, calculated from the date on which the patentee or the interested party knows or has reasonable grounds to know about the infringing act(s). A patent infringement case should be concluded within 6 months from the time the court accepts the case.²⁶⁶

If the decision is appealed, the case should be concluded within 3 months from when the appeal is accepted by the appellate court. However, there are no time limits set for civil cases involving foreign elements set in the Civil Procedure Law. Also note that the patent infringement case will often be accompanied by an invalidation case. If the infringement case is suspended until the court decision in the invalidation case is reached, the whole procedure can take a long time, often several years. To avoid long court proceedings, nearly every court in China has set internal mechanisms to control the rate of case conclusion. These should greatly improve the efficiency of case rulings.

5.1.2.3.1 Evidence

The procedure in litigation is quite different from civil litigation in the US; there is no 'discovery', where documents are disclosed to the opposing party. The Court can question the witnesses directly, demand production of documents, and conduct inspections. The Court has the power to seize any evidence of infringement during the proceeding. Since challenges to the validity of the patent are not heard in Court but by SIPO's re-examination board, in some cases the Court will stay its proceedings pending the re-examination.

Stays are more common in design and utility model infringement cases than in invention patent cases. Litigation typically lasts for 2 to 4 years. Since there is no provision for the loser to automatically pay attorney's fees and costs, these amounts are included within the plaintiff's damages request. Criminal investigations can be requested and if allowed, will occur at the same time as the civil suit.

²⁶⁶ Managing Intellectual Property Magazine, SUPPLEMENT - CHINA IP FOCUS 2009 7TH EDITION, "Understanding patent infringement Cases" <http://www.managingip.com/Article.aspx?ArticleID=2176036> (Last visited on 11 June 2010)

Table 2: Summary of the first instance jurisdiction of different Chinese Courts with regards to IP cases

Type of Cases		BC (if designated by SPC)	IC	HC
Trade marks (except well-known marks) and copyrights	claim ≥ Rmb200million			✓
	claim ≥ Rmb100million and domicile of one of the parties not in jurisdiction of court			✓
	claim ≥ Rmb100million and case being foreign-related			✓
	claim between Rmb10million and 5million, and domiciles of all parties in jurisdiction of court	✓ (subject to local HC rules)		
	claim < Rmb5million	✓ (subject to local HC rules)		
	Other cases		✓	
Well-known marks			✓ (designated IC)	✓ (if claim ≥ Rmb200million or (domicile of one of the parties not in jurisdiction of court or foreign-related) ≥ Rmb100million)
Patents			✓ (designated IC)	✓ (if claim ≥ Rmb200million or (domicile of one of the parties not in jurisdiction of court or foreign-related) ≥ Rmb100million)
New plant varieties	Re-patentability, validity, change of name of new plant varieties, compulsory licences, and their royalties		✓ (Beijing No.2 IC)	
	Re-protection, ownership, right to transfer, infringement, administrative punishment decisions against counterfeiting and infringement		✓ (designated IC)	✓ (if claim ≥ Rmb200million or (domicile of one of the parties not in jurisdiction of court or foreign-related) claim ≥ Rmb100million)
Integrated Circuit layout designs			✓ (designated IC)	✓ (claim ≥ Rmb200million or (domicile of one of the parties not in jurisdiction of court or foreign-related) ≥ Rmb100million)

Note: The SPC does not have first-instance jurisdiction, but only hears appeals and retrials

5.1.2.3.3 Costs

The cost of litigating a case in China will range anywhere from \$50,000 to \$100,000,²⁶⁷ depending on the complexity of the case. The duration ranges from 6 months to 2 years. The overall cost is relatively inexpensive compared with countries such as the US and UK, making litigation a relatively affordable option. Furthermore, the time frame is far shorter than other countries.

²⁶⁷ IP Management magazine (on-line), SUPPLEMENT - CHINA IP FOCUS 2010 8TH EDITION, "Choosing the right enforcement path" by Aaron D Hurvitz to be viewed at <http://www.managingip.com/Article.aspx?ArticleID=2460295> (Last visited on 6 June 2010)

5.1.3 Remedies for infringement

There are 3 types of remedies for patent infringement under Chinese law which are civil, criminal, and administrative remedies. Civil remedies, the most common remedies, are available to every patent owner and the main forms thereof are discussed below. In addition to civil remedies, the patent owner may seek criminal or administrative remedies for certain infringing activities. The criminal and administrative remedies are available to those patent owners whose patents have been passed off by others.²⁶⁸

5.1.3.1 Interdict

The procedure for obtaining a preliminary injunction (temporary interdict) is a relatively new feature of Chinese law, having only come into effect on 1 July 2001. Grounds for obtaining a preliminary injunction are typical of many other jurisdictions and are available to the patentee and to a licensee in certain instances.

Article 61 of the current Patent Law authorises courts to issue injunctions *before* filing an infringement suit, which may be translated as China's efforts to implement its obligations to provide preliminary injunctive relief in patent infringement cases. In China, this is referred to as 'pre-suit injunction'.

The petition for the preliminary injunction must be brought before a court having jurisdiction over the patent infringement action that may later ensue. The court may consult either of the parties for clarification of any questions it might have. If the petition meets the relevant requirements, the court will issue a preliminary injunction order within forty-eight hours of receiving it and notify the alleged infringer within 5 days of issuing such order. The alleged infringer may then file a request for the court to reconsider, within 10 days of receiving the notification of the court's order, although the filing of such a request will not set aside the preliminary injunction. If the petitioning party does not file a patent infringement suit within fifteen days of the issuance of the order, the court will overturn the preliminary injunction. Either party may request the issuing court to reconsider its decision, which is an administrative procedure within the court. However, the injunction will remain enforceable during reconsideration and any subsequent proceedings until final judgment.

²⁶⁸ Section 216 of the Criminal Code of the People's Republic of China provides that "[i]n serious circumstances, those passing off other's patent, shall be sentenced to imprisonment for a period less than 3 years or imposed a penal servitude, with a fine concurrently or separately.", See China Law Library of congress, Zhonghua Renmin Gongheguo Fagui Huibian 1979-2001 [Criminal Law of the People's Republic of China] art. 216 – <http://www.loc.gov/law/help/china.php> (Last visited on 10 June 2010)

The Revised Law incorporates the above and further clarifies that the posting of a bond for a preliminary injunction motion is required. If no bond is posted, the motion will be denied. Moreover, the petitioner is responsible for any loss sustained by the respondent if the petitioner makes a mistake in the motion for preliminary injunction.

Despite the provision within Chinese Patent Law for the granting of preliminary injunctions, in practice it would seem that the Chinese Courts are not quick to grant such relief, and to date there have been only a few cases petitioning for the grant of a preliminary injunction order, as obtaining a preliminary injunction in most patent infringement cases in China has always been and is becoming increasingly more difficult.

Both infringement and irreparable harm must be clearly proven - a burden that is not easy to meet in China, given the stringent evidentiary requirements and the lack of discovery procedures. Moreover, a few years ago the Supreme People's Court tempered any early enthusiasm for the issuance of such injunctions by issuing an instruction to the lower courts, urging caution in issuing preliminary injunctions and noting that preliminary injunctions should not be issued in cases involving non-literal infringement or complicated technologies. Statistically, most plaintiffs in patent infringement cases do not seek a preliminary injunction for these reasons. For those who do request a preliminary injunction, the success rate is relatively high (i.e., greater than 50 per cent). It is yet to be seen whether the statistics will change after the effective date of the Amendment.

Where it is established that an act constitutes an act of patent infringement, the administrative authority for patent affairs shall order the infringer to immediately cease the infringing act and take the following measures to stop the infringing act:²⁶⁹

- Order the infringer manufacturing a patented product to immediately cease the act of manufacture, destroy the equipment or moulds specially used for the manufacture of the infringing products, and not to sell or use the infringing products that have not been sold or not to market them in any other form. Where it is difficult to store the infringing products the infringer shall be ordered to destroy them.

²⁶⁹ See China Daily, IPR Special, "New patent law amendment codifies some IP protections", http://www.chinadaily.com.cn/bw/2009-12/07/content_9127262.htm Updated: 7 Dec 2009 (Last visited on 11 June 2010) and also IPSOON Website, China Patent News, "China Patent Infringement & Patent Litigation" (IPsoon Global Agency was established in 2002 and is one of the most famous intellectual property firms in the people's republic of China) - See <http://www.inipsoon.com/Patent/patentinformation/071120023492345124.html> (Last visited on 10 June 2010)

- Order the infringer using a patented process to immediately cease the act of using the patented process, destroy the equipment or moulds specially used for the exploitation of the patented process, and not to sell or use the infringing products that have not been sold and which have been directly obtained by the patented process, or not to market them in any other form. Where it is difficult to store the infringing products the infringer shall be ordered to destroy them.
- Order the infringer selling patented products or products directly obtained by the patented process to immediately cease the act of sale, and not to use the patented products or products directly obtained by the patented process that have not been sold or not to market them in any other form. Where it is difficult to store the infringing products the infringer shall be ordered to destroy them.
- Order the infringer offering for sale of patented products or products directly obtained by the patented process to immediately cease the act of offering for sale, to eliminate ill effects and not to permit any act of actual sale.
- Order the infringer importing patented product or products directly obtained by the patent process to immediately cease the act of importation; where the infringing products are imported into the territory of PRC, ordering not to sell and use the infringing products, or to market them in any other form. Where it is difficult to store the infringing products the infringer shall be ordered to destroy them. Where the infringing products are not imported into the territory of PRC, the relevant customs may be notified of the Resolution Decision.
- Take other measures necessary to cease the infringing act.

5.1.3.2 Damages

Chinese Patent Law provides for compensation of damages caused by acts of infringement. Under the 2000 Patent Law, infringement damages were assessed on the basis of the following factors, in descending order of importance: (1) the actual loss suffered by the patentee; (2) the profits made by the infringer due to infringement; and (3) a multiple of the reasonable royalty found by the court. Where there is insufficient evidence of the patentee's loss, infringer's profits, or reasonable royalty, Chinese courts often award total damages of up to RMB 500,000 (about US\$72,500). Such damages award is prescribed in a Supreme People's Court judicial interpretation (which carries legal force in China).

The Revised Law codifies the award of statutory damages and increases the upper limit to RMB 1,000,000²⁷⁰ (about \$145,000). Moreover, pursuant to the Revised Patent Law, a judicial punishment upon patent infringement may be further intensified to the extent that the damages for patent infringement shall include the costs incurred by the patent right holder²⁷¹ to safeguard its right, including preventing such infringement.

Despite the provisions in Chinese law for the compensation of damages sustained by the plaintiff, in practice it is apparently difficult to collect on such orders for damages unless the entity owing the compensation is a company of substance. It is suggested that some small companies may disappear or liquidate their assets before a judgment for damages is obtained against them, in order to avoid payment.²⁷²

5.1.3.3 Declaration of non-infringement

Although there are no laws or regulations governing the matter, it is possible to obtain a declaration of non-infringement (called a declaration of judgement²⁷³) from the Chinese Courts. A party may seek to obtain such a declaration if, upon having received a letter of warning from a patentee threatening infringement action, he responds to the patentee giving reasons for his non-infringement, yet receives no further response from the patentee on the matter. It is unclear if these are the only circumstances under which such an application may be brought before the court. It is uncertain, if in the case of a process patent the party requesting the declaration does not intend to operate the process in China but may import and/or sell the product obtained by the process in China, whether the requesting party must prove that the process used is different from the patented process or whether they may simply show that the product is not a direct product (and thus avoid going into the question of whether the process being used is even similar to the patented process).

²⁷⁰ Previously where a court is unable to determine the actual damages with reference to losses, profits or license fees etc., the maximum damages which may be awarded in an action for patent infringement is RMB 500,000 (approximately US\$ 60,000).

²⁷¹ China has amended its IP laws and regulations in line with the requirements of Trade-Related Aspects of Intellectual Property Rights (TRIPs) since 2001, in order to meet its commitments to the World Trade Organization (WTO). TRIPs provides that a court may award an IP owner appropriate attorney's fees in an IP litigation case. Such an award of attorney's fees was therefore recognised by those IP-related judicial interpretations issued by the Supreme People's Court of China

²⁷² Opinion from Chinese Patent Counsel, 2009

²⁷³ <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1915291&issueID=> (Last visited on 12 June 2010)

5.2 Japan

The enforcement of patent rights in Japan is regulated in accordance with a system unique to Japan. This is merely a brief overview based on a review of the English translation of the Patent Law.²⁷⁴

5.2.1 Scope of infringement

Enforcement of patent rights through infringement proceedings in Japan (direct and indirect infringement) is possible, in particular the Act provides that a patentee may require infringers to cease infringing²⁷⁵ conduct; demand infringers to destroy articles or facilities related to the infringement;²⁷⁶ request the court to order infringers to recover the patentee's business reputation damaged through the infringement,²⁷⁷ for example, to publish an apology in a local Japanese newspaper; claim infringers to give the patentee the profit earned by infringing the patent;²⁷⁸ and claim infringers to compensate for the patentee's damage caused by the infringement.²⁷⁹

Unique to Japan, it recognises patent infringement under the doctrine of equivalents²⁸⁰ (DOE)²⁸¹ as well as indirect infringement. In terms of DOE, infringement can be found even when the infringing device or method is not literally within the scope of the patented claim but may be considered an equivalent. The requirements are:

- The portions where differences exist between the patented invention and the product in question must not be essential portions of the patented invention.
- The object of the patented invention must be capable of being achieved and the same effects and results must be obtained even when the differing portions are substituted with those of the product in question.
- Those skilled in the art must have been capable of readily conceiving such substitutions at the time the product in question was produced.

²⁷⁴ English translation of the Japanese Patent Law can be viewed at <http://www.cas.go.jp/jp/seisaku/hourei/data/PA.pdf> (Last visited on 12 June 2010)

²⁷⁵ Article 100(1)

²⁷⁶ Article 100(2)

²⁷⁷ Article 106

²⁷⁸ Article 703 (of the Civil Code of Japan)

²⁷⁹ Article 706 (of the Civil Code of Japan)

²⁸⁰ The Ball Spline Bearing Case (Tokyo High Court; February 3, 1994; Case Number Heisei 3 (Ne) 1627) gathered a lot of attention as the first true example of a Japanese case in which infringement was acknowledged as having taken place by applying the Doctrine of Equivalents. The case was appealed to the Japanese Supreme Court, and Became the landmark case by focusing on the fact that the Supreme Court approved of the Doctrine of Equivalents

²⁸¹ Patent Enforcement in Japan as Part of a Global Litigation Strategy By Jason S. Shull, Yuko Hara, and Taku Oomori from *Intellectual Property Litigation*, Volume 19, Number 4, Summer 2008 to be found here <http://www.bannerwitcoff.com/articles/Intellectual%20Property%20Litigation%206.08%20JShull%20article.pdf> (Last visited on 15 July 2010)

- The product in question is not identical to the art which was publicly known at the time the application was filed, nor could it have been readily formulated by those skilled in the art at the time of filing.
- There are no special considerations such as if the product in question was purposefully excluded from the claims during the application procedure.

There were quite a number of cases following the *Ball Spline*-case that assisted with the interpretation of these criteria.²⁸²

Indirect infringement regarding a product invention, includes acts of manufacturing, assigning or offering for import or assignment for business purposes, articles which are used in making said products (aside from those which are in wide circulation in Japan) and are indispensable for solving the problems of the invention, with the knowledge that the invention is a patented invention and the articles will be used to work the invention. For a process invention, indirect infringement is defined as acts of manufacturing, assigning or offering for import or assignment, for business purposes, articles which are used in working the process (aside from those which are in wide circulation in Japan) and are indispensable for solving the problems of the invention, with the knowledge that the invention is a patented invention and the articles will be used to work the invention. Also, if any third party commits 'acts of manufacturing, assigning, leasing, displaying for the purpose of assignment or lease, or importing, in the course of trade, the articles to be used exclusively for the manufacture of the product', it will be deemed as indirect infringement. Manufacture includes assembly or putting together the product. If the used exclusively requirement is present, there is no need to show knowledge on the part of the infringer.

The most common defences include non-infringement and invalidity. Other notable defences commonly pled to a charge of patent infringement of prior use, the defence of completion of prescription, and the defence of exhaustion.

With respect to the defence of *prior* user's right, Article 79 of the Japanese Patent Law provides a non-exclusive license to an accused infringer who has commercially made, sold, or offered for sale the invention in Japan or has been making preparations to do so at the time of filing the patent application.

²⁸² See Doctrine of Equivalents in Japan after Supreme Court Decision in 1998 in Ball Spline Bearing Case, SONODA & KOBAYASHI, 16 November 1999, available at <http://www.patents.jp/Archive/19991116-02.pdf> (Last visited on 12 June 2010)

With respect to the defence of completion of prescription which is similar to the statute of limitations defence under US law, Article 709 of the Japanese Civil Law precludes a patent owner from recovering damages if the suit for infringement was not filed within 3 years after the patent owner became aware of the accused infringer's activities.

The defence of patent exhaustion is similar to that under US law, in that the unrestricted sale of a patented product, by or with the patent owner's permission, exhausts the patent owner's right to control further sale of that product. Similar to the law of China, Japanese law also recognises the doctrine of international patent exhaustion.²⁸³

5.2.2 Enforcement system

Japanese IP dispute resolution currently uses a 2-track system, with the Board of Appeals of the Japan Patent Office (JPO) hearing invalidation appeal challenges and the District Court hearing patent infringement actions. The JPO Board of Appeals panel consists of experienced appeal examiners and reviews all relevant invalidation grounds.

Patent infringement proceedings are heard before the Osaka or Tokyo District Court, which have exclusive jurisdiction over different geographical areas. Both district courts have designated IP divisions, whose technical advisors (*saibansho chōsa-kan*) brief judges on the complex technical matters often involved in patent infringement cases.

In Japan patent infringement is a crime.²⁸⁴ A person who has infringed a patent right can be imprisoned for (at most) 5 years, or must pay a fine of at most 5 million yen. In addition to the above penalty for an infringer, a firm that the infringer belongs to must pay a fine of at most 150 million yen.²⁸⁵

5.2.2.1 Jurisdiction

Japanese courts have introduced major changes in jurisdiction for litigation of complex issues such as patents and other intellectual property.

²⁸³ Canon Inc v. Recycle Assist Co. Ltd., 2005 (ne) 10021 (Intellectual Property High Court, January 31, 2006) and 2006 (ju) 826 (Supreme Court, November 8, 2007) wherein it was concluded that an unrestricted sale of a patented product *anywhere* results in patent exhaustion for that product.

²⁸⁴ Article 196 (Patents Act)

²⁸⁵ Article 202

The Civil Procedure Code was revised to change the jurisdiction of the courts and to create a central system for processing patent and intellectual property cases.²⁸⁶ The JPO also introduced major revisions in the Patent Act to help judges resolve difficult patent issues and grant quick and substantial relief for patent infringement. The patentee may bring 2 types of lawsuits, either independently or simultaneously: a main suit (*honso*) and a petition for preliminary injunctions (*karishobun*). Both proceedings are undertaken in parallel as separate judicial proceedings. After the plaintiff files a complaint, it is served by the court. The first hearing is scheduled in about 1 month to 6 weeks after the complaint's filing date. Subsequent hearings take place at intervals of 1 to 3 months. Each hearing is short, no more than twenty minutes.

As from April 2004 the following changes were made to the Civil Procedure law:

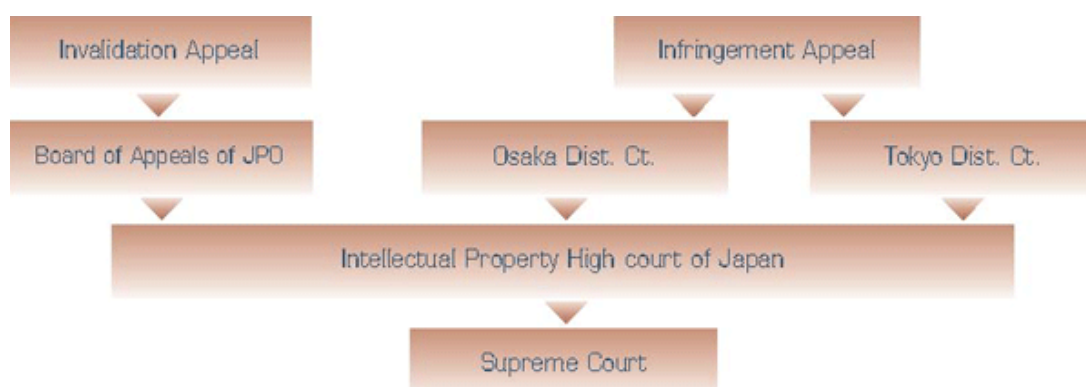
- All litigation relating to patents, utility models, circuit design rights and copyright in computer programmes is to be assigned exclusively either to the Tokyo District Court or Osaka District Court. Accordingly, it will no longer be possible to bring proceedings in other District Courts which previously had concurrent jurisdiction with those 2 courts.
- The number of specialist divisions in Tokyo District Court has been increased to 4 to meet the increased demand.
- All appeals will now be heard by the Tokyo High Court, which has by far the most specialisation and expertise in the intellectual property field. The number of judges in the intellectual property division of the Tokyo High Court was increased from sixteen to eighteen to meet the additional demands.
- In the Tokyo High Court, a grand panel system was introduced to ensure consistency of High Court decisions. When cases raising the same issues are pending in the High Court, they will be heard by a panel consisting of 5 leading judges with intellectual property expertise.
- One-hundred-and-forty technical advisers have been appointed to assist the High Court and District Courts on technical matters. These advisers are university professors or researchers in public or private organisations who will be able to assist the court with their expertise on a part-time basis when required. This is in addition to the full-time research officials who are already employed by the courts.

²⁸⁶ KnowledgeLink , Thompson Reuters Newsletter , July 2007, "Transforming intellectual property in Japan", Professor Ruth Taplin to be viewed at <http://scientific.thomsonreuters.com/img/knowledgelink/8398180/8398184/japan.pdf> (Last visited on 13 June 2010)

In 2005 a further amendment was introduced creating a new intellectual property High Court as part of the Tokyo High Court; the Intellectual Property High Court of Japan (IPHCJ). This amendment and the formal creation of the court has had the effect of enshrining in law the new position with respect to intellectual property specialisation, the formality being viewed as appropriate in light of the importance being attached to intellectual property rights at present in Japan. This specialist IP appellate court reviews, on a *de novo* basis, all JPO invalidation and District Court infringement decisions.

An appeal mechanism against IPHCJ decisions is available through the Supreme Court, Japan's highest appellate court. The Supreme Court rarely overturns the IPHCJ's decisions as appeals are restricted to reviewing the legal reasoning behind the decision, not the facts of the case. It has the discretion to accept or decline to review an appeal.

Figure 6: Japan's Dispute Resolution Framework²⁸⁷



Patent infringement actions in Japan typically take 3 to 5 years to obtain a first instance decision.

²⁸⁷ WIPO Magazine, February 2010, "Resolving IP Disputes in Japan: Counting the Cost", *Tessensohn et al* available at http://www.wipo.int/wipo_magazine/en/2010/01/article_0007.html (Last visited on 12 June 2010)

The 1996 revision to the Civil Procedure Code has an impact on this and the average pendency period of first instance IP lawsuits was more than halved – from 31.1 months to 12.5 months (between 1996 and 2006) and reported to be 14 months in the WIPO report of 2010.²⁸⁸

5.2.2.2 Warning letter

In Japan a warning letter²⁸⁹ is not required to commence litigation but is sometimes sent as a last-chance warning to the defendant.²⁹⁰ Most infringers in Japan will either ignore any warning letter or engage in wasteful correspondence with never-ending requests for frivolous particulars or other time-delaying tactics. These ruses are to determine the case's strengths and weaknesses and the infringer will subsequently use the volunteered information to prepare a stronger defence or invalidity attack. Therefore patentees should set a clear date to end such time-wasting correspondence and simply file the infringement complaint.

A recipient of a warning letter could initiate a suit before the appropriate District Court for a ruling that the patentee has no right to take legal action based on the patent (similar in effect to a US declaratory judgment proceeding) and the patentee will respond by filing a patent infringement complaint and consolidate all proceedings before the same court.

A patentee could be held liable for damages under Japan's Law to Prevent Unfair Competition if it circulates a warning letter to the accused infringer's customers or suppliers, and such infringement allegations are proven false. Caution must therefore be exercised against circulating such warning letters and, if circulated, the infringement allegations must be tenable.

5.2.2.3 Evidence

The pre-action procedure for the collection of evidence was adopted as a result of the revisions in 2003 to the Civil Procedure Code.²⁹¹

²⁸⁸ WIPO Magazine, IP Litigation Costs, Special Edition, February 2010, "Resolving IP disputes in Japan", pp 16 – 18, to be viewed at http://www.wipo.int/wipo_magazine/en/pdf/2010/wipo_pub_121_2010_01.pdf (Last visited on 13 June 2010)

²⁸⁹ IP Management, SUPPLEMENT - JAPAN IP FOCUS 2007 4TH EDITION Five patent law quirks you need to know, 01 Sep 2007 Japan's patent enforcement regime has some unique characteristics. Yukio Nagasawa of Shobayashi International Patent & Trade mark Office outlines a few that foreigners should be aware of to be found at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1408985&issueID=>

²⁹⁰ Managing IP Magazine, Japan Special focus 2004, "Planning for effective patent enforcement", to be found at <http://www.managingip.com/Article.aspx?ArticleID=1321672> (Last visited on 7 June 2010)

²⁹¹ SUPREME COURT OF JAPAN, ENGLISH WEBSITE, OUTLINE OF CIVIL LITIGATION IN JAPAN to be viewed at http://www.courts.go.jp/english/proceedings/civil_suit.html (Last visited on 13 June 2010)

To better prepare for a suit, a party may, prior to filing suit, inquire in writing of the opposite party about the matters which are clearly necessary for the preparation of the allegation or proof of the suit. Furthermore, the court may, upon a motion of a party, make pre-action dispositions to collect evidence such as a request for submission of a document, a commission to government offices or other bodies for an investigation etc., after hearing the opinions of the other party. The court may so decide when it deems that the evidence concerned will clearly be necessary for the proof of the case once it is filed and that collection of the evidence by the party making the motion alone will be difficult. A written notice indicating the intent of a would-be plaintiff to sue a would-be defendant given by the former to the latter is a prerequisite for the above-mentioned proceedings. Authority and control over the gathering of evidentiary facts is thus vested in the court, with the judge assuming the primary responsibility for taking and receiving evidence. Japanese attorneys have no real power to compel the production of evidence or to elicit testimony from either adverse parties or third parties, and must therefore rely on voluntary co-operation or seek intervention by the court.²⁹²

Live examination of witnesses in patent infringement cases is rare. The Japanese courts largely rely on written briefs/evidence submitted by the parties.

It is in view of this approach for evidence collection that the employment of technical assistants should be understood.²⁹³

The technical assistants are full-time court staff who assist a judge mainly with technical issues when the court hears a patent case. Most of the technical assistants are appointed from among former Patent Office appeal examiners and, after the completion of a 3-year term, they return to the Office to serve again as appeal examiners. Although the court started appointing technical assistants from among *benrishi* (Japanese patent attorneys) 5 years ago, most of the technical assistants are still appointed from among Patent Office appeal examiners. It is usually the case in patent infringement actions that the court issues an examination order to the technical assistants.

Japan has no jury system, and whether a patent is infringed or not is decided only by the judge. Most judges majored in law at university and do not have a science degree.

²⁹² "Civil Law Discovery in Japan: A Comparison of Japanese and U.S. Methods of Evidence Collection in Civil Litigation, Wagnild, 2002 http://www.hawaii.edu/aplpj/articles/APLPJ_03.1_wagnild.pdf (Last visited on 13 June 2010)

²⁹³ IP Management, SUPPLEMENT - JAPAN IP FOCUS 2007 4TH EDITION Five patent law quirks you need to know 01 Sep 2007 Japan's patent enforcement regime has some unique characteristics, Yukio Nagasawa of Shobayashi International Patent & Trade mark Office <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1408985&issueID=> (Last visited on 12 June 2010)

It is clear that technical assistants play an important role when a judge is interpreting the meaning of technical terms used in the claims of a patent. It is also clear that technical assistants have a considerable influence on the judge when s/he decides a case in which the defendant argues for the invalidation of the patent.

The presence of technical assistants is significant for judges in patent infringement cases in Japan. Judges tend to be busy and are often reluctant to allow procedures that will lengthen a trial, such as setting dates for hearings where testimony is heard from the 2 parties in infringement cases (for example, a Markman hearing in the US²⁹⁴), or for testimony of expert witnesses as requested by the parties.

For these reasons judges prefer to issue examination orders to technical assistants instead of appointing experts and/or hearing testimony from the 2 parties. The key to winning a patent infringement action in Japan is not to request qualified expert witnesses, but rather to persuade the technical assistants. Even if an expert witness is requested, courts in Japan will usually not allow the expert witness to testify.

Submission to the court of an expert declaration after making careful preparations is most effective in persuading technical assistants. Hearsay is not applicable in civil actions in Japan.

Traditional Confucian philosophy holds that it is better to resolve a dispute than fight over it to the end. This philosophy exhibits itself in Japanese civil procedure. Proceedings in both a main action and one for a preliminary injunction typically involve a series of meetings with the judge to narrow the issues and hopefully result in a settlement.

5.2.2.4 Costs²⁹⁵

The plaintiff must pay an official filing fee to the District Court, calculated as a percentage of the economic value of the case. For example, if the amount at issue is US\$1,000,000, the official filing fee will be about US\$4,000. If the value is US\$10,000,000, the filing fee will be about US\$30,000.

²⁹⁴ See section 5.4.1

²⁹⁵ Information obtained from WIPO Magazine, February 2010, "Resolving IP Disputes in Japan: Counting the Cost", Tessensohn *et al* to be viewed at http://www.wipo.int/wipo_magazine/en/2010/01/article_0007.html (Last visited on 13 June 2010)

The economic value of a patent litigation case generally consists of the cost of prohibiting future infringement plus the amount of damages claimed; inclusive of attorney costs estimated at US\$300,000.

The estimated cost of preparing a petition to the Supreme Court depends on the case's complexity (and ranges from US\$5,000 to US\$25,000). If the Supreme Court consents to hear the appeal, the cost of briefing and attending the hearing could be between US\$15,000 and US\$25,000 (again depending on complexity). Each party bears its own costs for IPHCJ appellate proceedings, and attorney's fees can range from US\$75,000 to US\$250,000 (or more) depending on the complexity of the case. Complex cases sometimes last longer than the average 8-month pendency period.

5.2.3 Remedies for infringement

Apart from the remedies below patent owners also have a mechanism to obtain quick relief by blocking the import of allegedly infringing products. Specifically, patent owners can file a petition under the Japanese Customs Law to stop the Importation of the allegedly infringing products. See Annexure 3.

5.2.3.1 Interdict

A preliminary injunction (*karishobun*) in Japan is a procedure based on a law known as the Civil Preservation Law and is distinct from merits-based civil actions based on the Code of Civil Procedure.

To obtain a preliminary injunction, a patent owner must establish that²⁹⁶ (1) it is the rightful owner or exclusive licensee of the patent; (2) the infringer is commercially manufacturing, using, selling, or offering to sell the infringing product; (3) the infringing activities are covered by the scope of the patent claims; and (4) an injunction is necessary to avoid irreparable damages. In addition, Japanese district courts often will require the plaintiff to deposit security before injunctive relief is entered.

However, this requirement is not strictly interpreted by the court in Japan.²⁹⁷ It is generally deemed by the court that if a product for which a patent is being infringed is in the market and the patent rights holder is enforcing patent rights, then irreparable harm is presumed to be incurred. The preliminary injunction order is extremely effective. The order can be immediately exercised.

²⁹⁶ IP Litigator, July/ August 2008, Vol. #14, No. 2. Published by Aspen Publishers, "Patent Enforcement in Japan as Part of a Global Litigation Strategy" by Jason S. Shull, Yuko Hara, and Taku Oomori

²⁹⁷ Supra Nagasawa

There is no stay of execution pending the appeal of a *karishobun* decision. The *karishobun* will only be discharged after the defendant files a new proceeding (*hozen igi*) and succeeds on the merits of that proceeding.

5.2.3.2 Damages

If patent infringement is found, the patentee is entitled to an injunction and/or damages. Lost profits are recoverable and are calculated based on the number of the infringer's products sold, multiplied by the patentee's profit per product sold²⁹⁸ or based on the assumption that the infringer's profit shall be the amount of damages awarded,²⁹⁹ or a reasonable royalty.³⁰⁰ Incremental profit calculation method may be used. Japanese courts are more willing to award higher damage awards - the record award was set in 2002 at ¥8.4 billion (\$79 million).³⁰¹ The court may determine the amount of damage by taking into consideration all evidence and arguments presented before the court. Japan has no treble/punitive damage system so damage awards are lower than in the US, making the permanent injunction the desired business remedy.

5.2.3.3 Settlement by judicial action

If a settlement is agreed upon between 2 parties after a patent infringement action has been initiated, it is possible under Japanese law to make the settlement agreement by non-judicial procedures and terminate the action by filing for a withdrawal of the action. In addition to these procedures, the court in Japan where the infringement case is pending is authorised to designate a settlement conference date and to recommend³⁰² that the parties settle. As a result, when the parties have agreed to resolve the dispute by a settlement, they can ask the court to designate a settlement date. The 2 parties can agree upon settlement details on the settlement conference date and the court puts the settlement on record, terminating the action. This is a settlement by judicial action.

In the case of settlement by judicial action, the settlement is established by the two parties agreeing in court. No settlement agreement made in non-judicial procedures is needed.

²⁹⁸ Article 102(1) Patent Law

²⁹⁹ Article 102(2) Patent Law

³⁰⁰ Article 102(3) Patent Law

³⁰¹ Excerpted from an October 11, 2002 presentation by the Sonoda & Kobayashi law firm of Tokyo, Japan discussing the impact of amendments to patent law regarding infringement lawsuits that became effective in 1999 and 2000 which can be viewed here <http://www.patents.jp/Archive/20021011-02.pdf> (Last visited on 14 June 2010)

³⁰² IP Management, SUPPLEMENT - JAPAN IP FOCUS 2007 4TH EDITION Five patent law quirks you need to know 01 Sep 2007 Japan's patent enforcement regime has some unique characteristics. Yukio Nagasawa of Shobayashi International Patent & Trade mark Office outlines a few that foreigners should be aware of to be found at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1408985&issueID=> (Last visited on 14 June 2010)

The establishment of the settlement ends the infringement dispute, with no need to file for a withdrawal of the action. The court where an infringement case is pending often designates a settlement conference date, without being so requested by the parties, at a stage where no agreement to settle has yet been reached. In these circumstances the court often suggests a possible conclusion to the infringement case at issue or discloses a clear conclusion to persuade the parties to settle. Japan has no jury system and the judge who is to decide a case, recommends a settlement. Therefore it is possible, if no settlement is established, that the court discloses in the settlement stage what decision is going to be rendered.

In the case of a settlement by non-judicial procedures, both parties determine the details of the settlement agreement by negotiation. However, in the case of a settlement by judicial action it is important to get the court to look on the case favourably from your point of view. For this to happen, it is a great advantage to retain an attorney who is skilled in communicating with the court in settlements by judicial action.

5.3 Europe

5.3.1 Scope of infringement

As most of the EU countries comply with TRIPS, legislation with regards to what constitutes infringement are generally harmonised, although there are complexities within certain jurisdictions. Under the EPC (1973 and revised 2000) there exists harmonisation among the member countries on the interpretation of what constitutes infringement. The EU applies literal patent infringement determined on the basis of the wording of the claim,³⁰³ i.e. the courts apply the specification (as dictionary of the claims) and drawings in the construction of the claims and it also applies the doctrine of equivalents. An attempt has been made to harmonise the doctrine of equivalents in that the EPC 2000 included an amended 'Protocol on the interpretation of EPC Article 69'³⁰⁴ intended to bring about uniformity at a national level between contracting states to the EPC when interpreting claims.

³⁰³ See EPO website <http://www.epo.org/patents/law/legal-texts/html/epc/2000/e/ma2a.html> (Last visited 14 June 2010)

³⁰⁴ The Protocol reads "Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties"

Article 69 defining the scope of protection of EP patents has now been amended to read
'1) The extent of the protection conferred by a European patent or a European patent application shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims.'

This is in contrast to the EPC1973 provision that '(1) The extent of protection.....shall be determined by the terms of the claims.' How this amended wording is to be interpreted by the national courts remains to be seen.

A second paragraph has been added to Article 69 *'(2) For the period up to grant of the European patent, the extent of the protection conferred by the European patent application shall be determined by the latest filed claims contained in the publication under Article 93. However, the European patent as granted or as amended in opposition proceedings shall determine retroactively the protection conferred by the European patent application, in so far as such protection is not thereby extended.'*

As the protocol to Article 69 is an integral part of the EPC, it is now *expressis verbis* required from infringement courts in all EPC member states to include equivalents of the claimed subject matter into the scope of protection.

There are however different interpretations in the various EU members as to what 'equivalent' means, as neither the EPC or the Interpretation Protocol provided a definition for this. For example, in France the doctrine of equivalents can be invoked if the accused device contains means having the same function in order to obtain the same result as the claimed invention. In Germany a device is considered to be equivalent if there is identity between the device and the claimed invention with respect to the problem and the effect, but not necessarily the 'solution principle' (the manner in which the device operates). In the United Kingdom the doctrine has never been employed but was most recently asserted by *Lord Hoffmann in Kirin-Amgen Inc v Hoechst Marion Roussel Ltd (2004)* in following the Protocol on the Interpretation of Article 69 of the EPC, which was confirmed in *Improver Corp v Remington Consumer Products Ltd (1990) F.S.R. 181*.³⁰⁵

There are different applications in the jurisdictions with regards to infringement and validity that are heard separately (so-called bifurcation) in certain EU jurisdictions such as Germany, as opposed to at the same proceedings, such as in the UK.

³⁰⁵ A leading United Kingdom case on patent infringement, particularly in relation to how to establish the scope of patent claims see http://en.wikipedia.org/wiki/Improver_v_Remington (Last visited on 23 July 2010)

Not all EU member countries apply file wrapper (prosecution history) estoppel *per se*; it depends on the national legislation and case law. The general approach for EU member states is that no prosecution history estoppel applies, i.e. no construction of claims on basis of prosecution files. There has however been a change towards application of this doctrine. For example on 22 December 2006 the Dutch Supreme Court ruled in the case *Dijkstra vs. Saier*³⁰⁶ that the patent prosecution file history may be invoked to prevent the patentee disclaiming an aspect of his patent monopoly in order to get a patent granted, but then reclaiming it during infringement proceedings. In France, the Paris Appeal Court confirmed this doctrine in *Cour d'Appel de Paris, 4e ch., April 5, 2006*.³⁰⁷

5.3.2 Enforcement system

Specifically with regards to patents, there is currently no single, centrally enforceable, European Union-wide patent. Since the 1970s there has been concurrent discussion towards the creation of a Community patent in the European Union. In May 2004 however, this has led to a stalemate and the prospect of a single EU-wide patent is receding.

5.3.2.1 Jurisdiction

There is currently no unified court which considers questions of infringement or validity in Europe, either for national patents or for ex-EPC patents. Therefore, enforcement of a European patent centrally is not possible. Enforcement is conducted on a national basis and while there is a degree of harmonisation, the national courts still adhere to a certain extent to their own precedents. Costs for enforcement vary dramatically from jurisdiction to jurisdiction.³⁰⁸ After grant of an EPO patent, enforcement of the intellectual property rights have to be conducted through the national states where the registration of the patent has been affected.

³⁰⁶ AZ1081, Hoge Raad, C05/200HR reported by EU IP Blog "IPEG" on 28 January 2007 Patent prosecution file history can be used in infringement case, on <http://www.ipeg.eu/blog/?p=82> and also <http://ipgeek.blogspot.com/2007/01/patent-prosecution-file-history-can-be.html> (Last visited on 13 June 2010)

³⁰⁷ See http://www.lavoix.eu/Infringement-and-Claim-Construction-Towards-a-French-File-Wrapper-Estoppel_a58.html (Last visited on 13 June 2010), See also summary of EU prosecution history estoppel application in EU case law on <http://www.law.washington.edu/casrip/symposium/Number8/CM%20-%20Franzosi%20prosecution1.pdf> by Del Negro et al

³⁰⁸ See however *Supra* Monsanto wherein the Court stated that since "these proceedings are, for the parties to the main proceedings, a step in the action pending before the national court, the decision on costs is a matter for that court. Costs incurred in submitting observations to the Court, other than the costs of those parties, are not recoverable"

There have been attempts to centralise the Patent courts for infringement into a central EP Court. Although it had been anticipated that the centralised EU patents Court will be implemented by end of 2008,³⁰⁹ discussions are still in progress.³¹⁰

In a further attempt of harmonisation, Directive 2004/48/EC³¹¹ of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights were implemented.

In accordance with this Directive EU Member States are obliged to consider all intentional infringements of an intellectual property right on a commercial scale as a criminal offence.³¹²

The Directive covers the remedies that are available in the civil courts, excluding criminal offences. Under Article 3(1), Member States can be censured in the European Court of Justice if their civil procedures on the infringement of intellectual property rights are 'unnecessarily complicated or costly, or entail unreasonable time-limits or unwarranted delays'. Otherwise the Directive harmonises the rules on standing, evidence, interlocutory measures, seizure and injunctions, damages and costs and judicial publication.

The provisions of the Directive was due for implementation in all member states of the European Union by 29 April 2006, but was only finally implemented by all member states late 2009. There does not appear to be a single source on the implementation schedule of this directive but an overview is available for Oct 2006³¹³ as updated by Freshfields in 2007,³¹⁴ and again by the author on 4 June 2010.

³⁰⁹Managing Intellectual Property Magazine, December 2007/January 2008 Issue "EU patent court back on the agenda" to be viewed at <http://www.managingip.com/Article/1788154/EU-patent-court-back-on-the-agenda.html> (Last visited on 20 Oct 2009)

³¹⁰Managing Intellectual Property Magazine, Weekly News, 6 June 2008 "EU patent court set to intensify" available on <http://www.managingip.com/Article/1943067/Discussions-on-EU-patent-court-set-to-intensify.html?ArticleId=1943067> (Last visited on 8 Aug 2009)

³¹¹ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights (also known as "(IPR) Enforcement Directive" or "IPRED"), see Official Journal of the European Union, 2 June 2004, to be viewed on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:195:0016:0025:en:PDF> (Last visited on 31 May 2010)

³¹² See Wikipedia definition http://en.wikipedia.org/wiki/Directive_on_the_enforcement_of_intellectual_property_rights#Subject-matter_and_scope (Last visited on 4 June 2010)

³¹³ *Summary of the implementation of Directive 2004/48 on the enforcement of intellectual property rights (the "Directive") in EU Member States as per October 2006*, Simmons & Simmons, October 2006.

³¹⁴ Freshfields Bruchaus Deringer, Newsletter, "IP Enforcement directive: towards an effective enforcement of IP Rights in Europe", by B Berghuis et al. to be viewed at <http://www.practicallaw.com/processSearch.do?q=IP+Enforcement+and+EU+Directive&sv=&rt=&sd=&sort=> Last visited on 4 June 2010)

Table 3: Implementation status of the Directive

Country	Implemented	Further details
Austria	Yes	The directive was implemented into two sets of laws by two ministries, one for intellectual and one for industrial property. The drafts of both ministries were very similar to each other. Implemented in Dec 2005. ³¹⁵
Belgium	Yes	Implemented through its Enforcement of Intellectual Property Act of 15 May 2007.
Czech Republic	Yes	Law No. 221 of 2006 came into force on 26 May 2006. From 1 January 2008 the Municipal Court of Prague will be the first instance court for IP infringement matters. ³¹⁶
Cyprus	Yes	No
Denmark	Yes	Act No. 1430/2005 came into force on 1 January 2006: The majority of the provisions of the Directive were already a part of Danish law prior to the implementation of the Directive. However, the Directive's rules on information, corrective measures and publication are new in Danish law.
Estonia	Yes	No
Finland	Yes	No
France	Yes	On 17 October 2007 France adopted a bill implementing the Directive. This implementation is effective immediately. At present there is only a very limited amount of case law available to indicate how the law will be applied in the French Courts.
Germany	Yes	Gesetz zur Verbesserung der Durchsetzung von Rechten des geistigen Eigentums vom 7. Juli 2008 (BGBl. I 1191). In force since 1 September 2008. ³¹⁷
Greece	Yes ³¹⁸	No
Hungary	Yes	Implemented by way of a comprehensive amendment of Different Hungarian acts on judicial enforcement, patents, trade marks, designs and copyright. Came into force in 2 stages — 01 January 2006 and 15 April 2006.
Ireland	Yes	No

³¹⁵ Review of IPR Enforcement Directive Implementation available on <http://eupat.ffii.org/08/06/epred/> (Last visited on 4 June 2010)

³¹⁶ European Communities Trade Mark Association, 25th Annual Meeting in WARSAW, "The Directive 2004/48/EC of April 29, 2004 - Is it an effective weapon or are there any alternative solutions for right holders?", László Bérczes – S.B.G. & K. Patent and Law Offices, 2006 to be viewed at http://www.ecta.org/IMG/pdf/Berczes_text_1_.pdf (Last visited on 4 June 2010)

³¹⁷ Patentgesetz [Patent Act], Dec. 16, 1980 BGBl. 1981 I at 1, § 140c as amended Jul. 7, 2008 BGBl. I at 1191 as referenced Centre for Advanced Study & Research on Intellectual Property, CASRIP Newsletter - Spring 2009, Volume 16, Issue 2, "The implementation of Articles 6 and 7 (2004/48/EG) through Section 140c of the German Patent Act", School of Law, University of Washington available on <http://www.law.washington.edu/Casrip/Newsletter/default.aspx?year=2009&article=newsv16i2Glatzel#FN1> (Last visited on 4 June 2010)

³¹⁸ Review of IPR Enforcement Directive Implementation available on <http://eupat.ffii.org/08/06/epred/> (Last visited on 4 June 2010)

Country	Implemented	Further details
Italy	Yes	Implemented by legislative decree number 140 of 16/03/06 which came into force on 22 April 2006.
Latvia	Yes	Since 14 December 2006 the European Parliament and Council Directive 2004/48/EC dated 29 April 2004 is implemented in the Civil Procedure Law of the Republic of Latvia. ³¹⁹
Lithuania	Yes	Since April 2006.
Luxembourg	Yes	On 22 May 2009, the Grand Duchy of Luxembourg voted the law that implements the European Directive of 2004. This law was published in the Gazette on May 28. ³²⁰
Malta	Yes	No
Netherlands	Yes	The Directive has been implemented through its Code of Civil Procedure that came into force on 1 May 2007.
Poland	Yes	Act of 9 May 2007 amending the Copyright and Related Rights Act and other selected Acts (Journal of Laws No. 99, item 662). The Act has unified civil law measures employed in the case of infringements of intellectual property rights. ³²¹
Portugal	Yes	No
Romania	Yes	No
Slovakia	Yes	No
Slovenia	Yes	No
Spain	Yes	Implemented by Law No 19/2006.
Sweden	Yes	Directive was implemented in the Swedish legal system on 25 February 2009 through amendments to existing intellectual property (IP) laws. ³²²
UK	Yes	The Directive was implemented by the Intellectual Property Enforcement regulations 2006 that came into force on 29 April 2006. ³²³

5.3.2.2 Comparative illustration of enforcement jurisdictions, costs and infringement remedies

Table 4 below shows in a comparative manner the jurisdiction, costs and remedies available for civil patent infringement proceedings in selected EU member states.

³¹⁹ Latvia Government and Public Sector Website, 21 January 2008, Article by Jānis Rozenfelds, Rozenfelds & Partners, Latvia: Court System In Latvia, to be viewed here <http://www.mondaq.com/article.asp?articleid=56364> (Last visited on 4 June 2010)

³²⁰ See Euromark website to be viewed on <http://www.eurimark.com/index.php/en/news/1-latest-news/130-law-of-22-may-2009> "Law of 22 May 2009 implementing Law Directive 2004/48/EC" (Last visited on 3 June 2010)

³²¹ Report on the implementation in Poland of Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, Warsaw, April 2009, to be viewed on http://www.mkidn.gov.pl/media/docs/pr_autorskie-enforcement.pdf (Last visited on 4 June 2010)

³²² My World, The Swedish implementation of the IPRED, July 19th, 2009, Csaba, <http://www.csaba.se/2009/07/19/the-swedish-implementation-of-the-ipred/> (Last visited on 4 June 2010)

³²³ As per Office of Public Sector Information website to be viewed at <http://www.opsi.gov.uk/SI/si2006/20061028.htm> (Last visited on 4 June 2010)

Table 4: Comparative illustration of some EU jurisdictions re IP enforcement and invalidation³²⁴

Country	Enforcement options	Infringement and validation dealt with simultaneously	Willingness of Courts to be bound by opinions and decisions of other courts with similar cases	Costs for first level decision	Avenues for appeal	Remedies for infringement and alternatives to litigation
Austria	Civil (infringement in terms of the Patents Act) or criminal (wilful infringement), patent holder may also seek declaratory decision from Austrian PTO and obtain customs measures (Regulation 1383/2003.)	Courts are competent to hear civil and criminal infringement proceedings. Only PTO can declare a patent invalid. Court may seek validity opinion from PTO. If potential of invalidity the infringement proceedings will be suspended pending the decision of validity by the PTO.	Not legally bound to consider other Courts opinions or Decisions. However Decisions and Opinions of the Supreme Court are used as guiding principles and will not deviate from previous Supreme Court rulings unless the facts of the case are different. A declaratory decision as to whether an act constitutes infringement within the scope of the claims, between the same two parties, are binding. Foreign Court Decisions are generally not taken into account although reasoning followed by German and English Courts are sometimes followed due to legal history and background	First instance between 15 000 and 50 000 Euros. Provisional proceedings between 3 000 and 15 000 Euros. Appeal between 6 000 and 15 000 Euros	Decision of infringement may be appealed to the High Court of Vienna within 4 weeks. An ordinary or extraordinary appeal may be allowed before the Austrian Supreme Court at its discretion. An appeal may be granted for any of the following reasons: nullity of procedural rules; other procedural errors; incorrect assessment of the facts and incorrect legal evaluation.	Preliminary injunctions; claim for removal of the 'interference' (destruction of the infringing product; the Patent Act provides claims for adequate remuneration; damages including loss of profit; in case of gross negligence or fault double damages.

³²⁴ Prepared from review of IAM Patents in Europe 2008

			being similar.			
Belgium	<p>EU Directive 2004/48EC was transposed on the Belgium Patents Act of 15 May 2008. Now civil proceedings exist in terms of Patents Act. In terms of the May 2007 Patents Act, patent holders can now seek injunction proceedings aimed at immediate cessation of infringement, recall of counterfeit goods, Ex parte proceedings in urgent matters for stopping infringement.</p>	<p>Infringement and validity are not necessarily dealt with at the same time, although this is often the case. Patent invalidity is often counterclaimed by the defendant in patent infringement matters.</p>	<p>As a general rule Belgian Courts are not bound by decisions of other (Belgian or foreign) courts on similar cases. Supreme Court decisions are authoritative and are usually followed by the lower courts</p>	<p>Cost of litigation on the merits of the first instance and involving a not too complex matter is between 50 000 and 150 000 Euros</p>	<p>Appeal is permitted against almost all first instance judgments as well as interim judgments. Grounds for appeal are not limited and no leave to appeal is required.</p>	<p>Injunction against infringer aimed at ceasing infringement; similar injunctions against intermediaries whose services are used by third parties to infringe patent; recall, definitive removal and destruction of infringing goods; orders for information on the origin of distribution networks. Patent holder is also entitled to claim damages. Punitive damages are not allowed. If damages cannot be determined the court may decide on an amount. The court can also order assignment of infringing goods to the Patent Holder. Infringement in bad faith, court may order assignment of profits.</p>

France	Criminal or civil actions may be brought to enforce rights. Criminal actions are however rare in practice. Civil parties that file a criminal complaint must pay a certain amount of money to secure payment of a civil fine if the criminal complaint is later found to be abusive.	Patent infringement and validity are dealt with in the same proceedings.	The doctrine of precedents is not recognised as such in France. Decisions issued by the French Courts of Appeal and the <i>Cour de cassation</i> (highest court in the French system) often guide judges in their reasoning. General principles set out by other courts over the years constitute <i>jurisprudence</i> ³²⁵ and are usually followed.	Not possible to predict. It will depend on the length of the proceedings, complexity of the case and the strategy of the litigating parties.	The defeated party may lodge an appeal against any judgment before the corresponding court of appeal within one month of notification of the judgment. If the appeal is dismissed, the case may be appealed to the <i>Cour de cassation</i> which has jurisdiction to hear the case and decide whether the court of appeal applied the law correctly, but the merits of the case will not be examined.	The IP Law of 29 Oct 007 on IP Infringement has introduced specific provisions regarding the way that judges calculate damages, these calculations include considering several factors such as loss of profit, moral prejudice etc. Patent owner has a choice between the damages so calculated or the award of a lump sum determined on the basis of reasonable royalties.
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³²⁵ Well established case law

Germany	Cease or desist letter; supply for preliminary injunction, obtain evidence of infringement and obtain border seizures	German courts hearing infringement matters deal exclusively with infringement of the patent. These courts are not competent to decide on the validity of a patent. Validity proceedings are heard by the Federal Patent Court. The defendant may request that the infringement proceedings be stayed until the invalidity proceedings are resolved. Such a request will only be granted where there is an overwhelming likelihood that the alleged infringed patent will be invalidated. If so the invalidation and infringement proceedings may run in parallel.	German courts are not bound by opinions or decisions of other courts that have dealt with similar cases. Even at appeal level, different views exist between the courts on particular questions of law, but in practice these differences are minor.	Fees depend on the value in dispute. In practice a plaintiff should expect a minimum exposure of 40 000 Euros. In appeal proceedings the expectation is roughly 20% higher than the first instance proceedings.	Any judgment in infringement proceedings may be appealed. It is however difficult to introduce new facts to the proceedings during appeal. The grounds are generally limited to view whether the court of the first instance applied the laws correctly. Only under very narrow circumstances	Cease and desist; Payment of damages; rendering of accounts for past infringements. Damages may be calculated in the basis of actual loss if the plaintiff; reasonable license fee or profits made by the defendant.
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Italy	Interim relief is the most efficient way to enforce IP rights in Italy. If enforcement is not urgent full proceedings on its merits can be initiated. This is the only way to seek compensation for damages	Patent infringement and invalidity matters can be (and usually are) dealt with in the same proceedings and before the same IP court. The patentee (in infringement proceedings) must prove the likelihood of the validity of the patent he seeks to enforce. This requirement is normally met if the patent has gone through the European granting procedure.	The Italian courts are not bound by, but can consider, the opinions and decisions of other courts that have dealt with similar cases. The precedents of the most prominent courts (Milan, Rome, Turin and Naples) do have quite an influence on the other IP courts.	The overall cost is significantly influenced by the complexity of the case. On average the costs of interim proceedings ranges from 40 000 to 50 000 Euros. Proceedings for a first instance decision from 90 000 to 120 000 Euros.	A first instance decision may be appealed before the specialist IP division of the court of appeal. Leave to appeal is not required. The court of appeal can reconsider underlying technical issues and appoint a new expert witness to scrutinize and/or supplement the opinions rendered by the expert witness appointed by the court of the first instance.	Injunction to stop sale of infringing goods; seizure of infringing products; penalty in the case the infringer does not promptly comply to court orders; and order for delivery of infringing goods; restoration of all damages suffered as a consequence of the infringing activity; publication of an abstract of the judgement in one or more news papers or trade magazines. Punitive damages are not awarded in Italy. Calculation of damages is generally the patent holder's loss of profits and net gain of profits by infringer.
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Netherlands	<p>Patent holders can initiate a court action in the event of unauthorized manufacture, use or sale of the patented product in the Netherlands. The new Code of Civil Procedure (1 May 2007) implemented the EC Directive for enforcement of IP Rights. This now allows for seizure orders of infringing goods. Ex parte injunction may be obtained where there is a risk of irreparable damage to the plaintiff. Contributory infringement can be acted against. Parties can agree to resolve their dispute through alternative dispute resolution such as arbitration.</p>	<p>Infringement and validity are dealt with in the same proceedings. The level of proof for infringement is a level beyond reasonable doubt. For invalidity, lack of novelty or lack of inventive step can be based on public or prior use, supported by witness statements in the form of written declarations.</p>	<p>Dutch courts do take into account decisions of foreign courts that have dealt with an equivalent patent, but will form their own opinion based on the facts. In Roche vs. Primus the High Court recently put an end to Dutch practice (under Article 6(1) of the Brussels Convention) of allowing cross-border injunctions against groups of companies in different jurisdictions of the EU, each infringing national validations of an EP patent. Such cross-border injunctions are no longer possible.</p>	<p>At first instance the cost of litigation may amount to between 50 000 and 200 000 Euros.</p>	<p>Appeals may be filed against decisions of the district court to the Court of Appeals, and from there to the Supreme Court. The latter is only for procedural violations and violations of law. No factual re-assessment of the case is undertaken.</p>	<p>Injunction (the most popular); Damages and loss of profit. No punitive damages are available.</p>
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Switzerland	Warning letter and seek out-of-court settlement. If not successful then patent holder must enforce its patent through a court action; cease and desist orders are available.	In general heard in the same court. Strict proof is necessary for both infringement and invalidation	Courts of the same level are not bound by opinions and decisions of other courts. Lower courts are usually bound by the decision of the higher court. In particular, in patent matters, the courts are usually willing to consider the opinions of other courts, as long as no contradictory opinion exists.	First instance cases can be between CHF 80 000 to CHF 200 000. The lower limit applies to cases that can be decided without appointing a court expert and the upper limit that requires a court expert and concerns a complex case and high value in litigation.	In main proceedings an appeal to the Federal Court is possible and in some cantons a higher cantonal court may hear the appeal, although with limited competence, mainly limited to procedural issues. For second instance cantonal court, direct appeal to the Federal Court may be prohibited or suspended until the second instance cantonal court issues have been decided.	Cease and desist order; reimbursement of damages; loss of profit. Punitive damages are not available
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United Kingdom	<p>Four possible courts where a patent holder can enforce his rights. The two main courts where infringement proceedings are conducted are the Patents Court of the Court of England and Wales and the Patents County Court for England and Wales. Both courts can grant an injunction and award damages for the whole of the UK. It is also possible to obtain this sort of relief from the Court of Session in Scotland and from the High Court in Northern Ireland.</p>	<p>Provided that each side has raised the issue, infringement and validity of the patent are dealt with together in the same action. Typically if the patentee sues for infringement, the defendant will counterclaim invalidity of the patent. Both infringement and validity must be proved on a balance of probabilities.</p>	<p>The courts of the UK are bound by findings in judgement of the Court of Appeal and the House of the Lords, where the senior courts have already considered the same legal issues before the court. The UK Courts will also take into consideration the case law of the EPO, and more specifically that of the Technical Board of Appeal at the EPO.</p>	<p>Costs vary significantly depending on the procedure adopted, complexity of technology involved, and complexity of the case in general and the number of patents involved the amount of expert evidence and such things as to whether experimental evidence is required. In the single case of a simple mechanical patent for a product in a streamlined procedure before the Patents County Court the matter can be brought to trial for £ 150 000.</p>	<p>Appeals from all of the courts dealing with patent infringement matters are to the Court of Appeal. It is however possible to appeal to the Court of Appeal only on points of law or in relation to decisions of the first instance. No new evidence may be introduced and leave to appeal is necessary from the judge of the court of first instance, or in the absence of such permission, from the Court of Appeal itself.</p>	<p>Most common relief is an injunction. Damages are not awarded following the first instance trial where the determination of a judge simply relates to the liability or otherwise of the alleged infringer, but the judge may order an enquiry as to either damages or the loss of profits which has been suffered by the patentee. Other remedies include delivery up of infringing goods, provision of information relating to the infringement, legal costs.</p>
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5.3.2.3 Evidence

As was stated earlier, in the EU questions in connection with infringement are governed by the various national laws that also determine the rules of procedure for court proceedings. In each country the law of the court is decisive for such rules, including issues of evidence and burden of proof. The implementation of Directive 2004/48/EC has however brought about harmonisation in some areas. Section 2 of the Directive deals with evidence under Article 6 and 7. Article 6 gives the power to the interested party to apply for evidence regarding an infringement that lies in the hands of the other party to be presented. The only requirement is for that party to present 'reasonably available evidence sufficient to support its claim' to courts. In case of an infringement on a commercial scale, Member States must also take steps to ensure that 'banking, financial or commercial documents' of the opposing party are presented. In both cases confidential information shall be protected. Article 6 provides that such measures may be taken *without the other party having been heard, in particular where any delay is likely to cause irreparable harm to the right holder or where there is a demonstrable risk of evidence being destroyed*. These are interlocutory, ex parte and in personam orders known in the English and Irish jurisdictions as Anton Piller³²⁶ orders. Article 7 provides for measures preserving evidence and that such measures may be granted under the same conditions as under Article 6 and include provisional measures such as physical seizure not only of the infringing goods (such as hard drives), but also materials used in production and distribution.

5.4 USA

5.4.1 Scope of infringement

Infringement³²⁷ of a patent is the unauthorised making, using, or selling of the patented invention within the territory of the United States during the term of the patent.

The exact nature of the right conferred by a US patent must be carefully distinguished, and the key is in the words 'right to exclude'.

³²⁶ In English and English-derived legal systems, an Anton Piller order is a court order that provides the right to search premises and seize evidence without prior warning. This prevents destruction of incriminating evidence, particularly in cases of alleged trade mark, copyright or patent infringements.

³²⁷ U.S.C Section 271

Any person is usually free to make, use, or sell anything s/he pleases and a grant from the Government is unnecessary. Since the patent does not grant the right to make, use, or sell the invention, the patent holder's own right to do so is dependent upon the rights of others and whatever general laws might be applicable. Another party may own a patent which will prevent the patentee from utilising her/his own invention. In addition, government laws, such as antitrust laws or FDA regulations, may restrict the ways in which a patent holder can utilise her/his invention.

Determination of patent infringement is a 2-step process: first a court determines the scope of the claims as a matter of law and then a jury compares the properly construed claims to the accused device.³²⁸

The jury must decide, as a matter of fact, whether the accused device infringes the claims, either literally or under the doctrine of equivalents. The traditional test³²⁹ for equivalence is whether the accused device performs substantially the same function in substantially the same way to obtain substantially the same result.

The US Courts also consider the prosecution history file in claim construction.³³⁰ The prosecution history serves 2 functions during an infringement suit: it affects a court's determination of the proper scope of the claims and it prevents the scope of the claims from including any subject matter the inventor surrendered during prosecution (i.e. prosecution history estoppel). A corollary to prosecution history estoppel is that a court must regard every element in a claim as material, even if the prior art did not require the claim to include the element. File wrapper estoppel has been applied vigorously by the Court of Appeal for the Federal Circuit in the case of *Festo v. Shoketsu Kinzoku KK*.³³¹

³²⁸ Referred to as the Markman hearing

³²⁹ The doctrine of equivalents has its roots in the United States Supreme Court decision in *Winans v. Denmead*, 56 U.S. (15 How.) 330 (1853) (see <http://supreme.justia.com/us/56/330/index.html>) (Last visited on 13 June 2010)

³³⁰ See *Harvard Journal of Law & Technology*, Volume 13, Number 3 Summer 2000 (PAGE LAYOUT AND NUMBERING DO NOT CORRESPOND TO ORIGINAL printed version) J.D. 2000, Harvard Law School; B.S.E. 1997, Princeton University, "PROSECUTION HISTORY ESTOPPEL, THE DOCTRINE OF EQUIVALENTS, AND THE SCOPE OF PATENTS", Chandler on [http://jolt.law.harvard.edu/articles/pdf/v13/oldNonPaginated\(DONOTUSE\)/13HarvJLTech465.pdf](http://jolt.law.harvard.edu/articles/pdf/v13/oldNonPaginated(DONOTUSE)/13HarvJLTech465.pdf) (Last visited on 13 June 2010)

³³¹ *FESTO CORPORATION v SHOKETSU KINZOKU KOGYO KABUSHIKI CO., LTD.* 234 F.3d 558, 56 U.S.P.Q.2d 1865 (Fed.Cir. November 29, 2000), *United States Court of Appeal case*

<http://www.ll.georgetown.edu/federal/judicial/fed/opinions/05opinions/05-1492.pdf> (Last visited on 13 June 2010)

The Court, when considering whether an amendment to a claim during prosecution would create an estoppel against a broad interpretation of that claim for purposes of determining infringement under the doctrine of equivalents, held that ‘an amendment that narrows the scope of a claim for any reason related to the statutory requirements for a patent will give rise to prosecution history estoppel with respect to the amended claim element’ irrespective of whether that amendment was to distinguish from the prior art, to clarify the meaning of the claim or for any other reason related to patentability. The decision also held that ‘when a claim amendment creates prosecution history estoppel, no range of equivalents is available for the amended claim element.’ This decision provides a basis for patent prosecution strategy in the USA to include claims in the original applications that are likely to survive prosecution without amendment, since it seems unlikely that any claim that has been amended during prosecution will be entitled to any added protection under the doctrine of equivalents; at least as far as the claim limitation that was amended is concerned.

In any patent infringement suit, the defendant may question the validity of the patent, which is then decided by the court in the same hearing. The defendant may claim that its actions do not constitute infringement and obtain a declaratory order of non-infringement.

5.4.2 Markman hearing

The Markman proceedings³³² came into existence after the US Supreme Court decision in *Markman v. Westview Instruments*, 517 U.S. 370.³³³ This proceeding is used to establish a separate preliminary trial on claim construction. In the *Markman* case, the US Supreme Court confirmed that claim construction is a matter of law. Since this decision, claim construction, as a matter of law, must be evaluated by a judge alone in a preliminary trial before being submitted to a judge and jury in the main trial.

In any infringement proceedings the matter will be stayed pending the Markman hearing, so that the claims are clear and the meaning agreed to between the parties prior to hearing infringement and/or invalidity claims.

³³² http://en.wikipedia.org/wiki/Markman_hearing (Last visited on 13 June 2010)

³³³ *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996) copy of case available on <http://caselaw.lp.findlaw.com/scripts/getcase.pl?navby=search&court=US&case=/us/517/370.html> (Last visited on 13 June 2010)

Typically, after a Markman hearing, the successful party will file a motion for summary judgment on patent infringement and/or validity, which is granted with increasing frequency. Accordingly, the importance of the Markman hearing in patent litigation cases cannot be overstated.³³⁴

5.4.3 Enforcement system

Within the US Government,³³⁵ besides the USPTO, the following substantive intellectual property, trade and enforcement agencies all play a role in domestic and international intellectual property enforcement activities.

The US Copyright Office administers the US copyright law and provides assistance to Congress on intellectual property matters, including assistance concerning international copyright agreements. The US Copyright Office advises Congress on anticipated changes in US copyright law, analyses and assists in drafting of copyright legislation and legislative reports, and provides technical assistance to other countries in developing their own copyright laws.

The US Department of Justice develops, enforces and supervises the application of all US federal criminal laws, including those dealing with intellectual property rights. Further, the US Department of Justice provides assistance in co-ordinating international as well as federal, state, and local law enforcement matters.

The US Customs Service is responsible for combating the flow of infringing goods into the United States. It has statutory authority to decide substantive issues of trade mark and copyright infringement, and also works with the US Department of Justice and the Federal Bureau of Investigation on domestic intellectual property matters.

The Office of the US Trade Representative is responsible for developing and co-ordinating US international trade, commodity and direct investment policy and leads negotiations with other countries in these matters. It provides trade policy leadership and negotiating expertise in its major areas of responsibility, including matters relating to trade-related intellectual property protection.

³³⁴ "Markman" Hearings - Transforming Northern District of California Patent Litigation March 17, 2000, Published in the San Francisco Daily Journal, March 17, 2000. Daily Journal Corp. Reprinted with permission on <http://www.townsend.com/resource/publication.asp?o=4350> (Last visited on 13 June 2010)

³³⁵ Domestic IP Enforcement in the USA to be found at <http://www.uspto.gov/web/offices/dcom/olia/globalip/domesticip.htm> (Last visited on 13 June 2010)

The US Department of Commerce provides practical information, including information relating to intellectual property protection to help US businesses select domestic and international markets for their products. This agency monitors, investigates and evaluates foreign compliance with more than 200 recent trade agreements, including TRIPS, the trade-related agreement on intellectual property.

5.4.3.1 Jurisdiction

Suits for infringement of patents follow the rules of procedure of the Federal courts. From the decision of the district court, there is an appeal to the Court of Appeals for the Federal Circuit. The Supreme Court may thereafter take a case by writ of certiorari.³³⁶ If the United States Government infringes a patent, the patent holder has a remedy for damages in the United States Claims Court. The Government may use any patented invention without permission of the patent holder, but the patent holder is entitled to obtain compensation for the use by or for the Government. In most types of civil cases, the Constitution gives the parties a right to a jury³³⁷ trial. The role of the jury is to decide questions of fact. However, in some complex cases, the parties choose to dispense with the jury and have the case decided by the judge.

When cases are appealed from district courts, they go to a federal court of appeals. Courts of appeals do not use juries or witnesses. No new evidence is submitted in an appealed case; appellate courts base their decisions on a review of lower-court records.

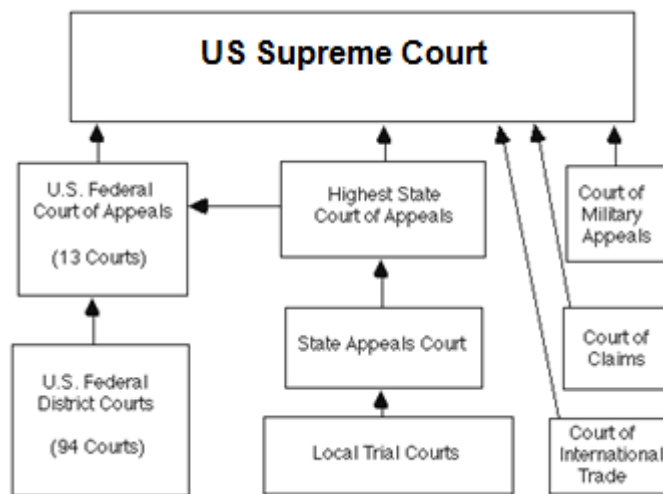
There are twelve general appeals courts. All but one of them (which serves only the District of Columbia) serve an area consisting of 3 to 9 states (called a circuit.) There is also the US Court of Appeals for the Federal Circuit, which specialises in appeals of decisions in cases involving patents, contract claims against the federal government, federal employment cases and international trade.

An appellate court's decision on an issue is binding on lower courts in the appellate court's jurisdiction. Thus, an appellate court's decisions are 'precedent', that the lower courts in the appellate court's jurisdiction must follow (apply).

³³⁶ A writ of certiorari means an order by a higher court directing a lower court, tribunal, or public authority to send the record in a given case for review.

³³⁷ A jury is a sworn body of people convened to render an impartial verdict (a finding of fact on a question) officially submitted to them by a court, or to set a penalty or judgment.

Figure 7: Diagram of the US Court System³³⁸



5.4.3.2 Evidence

Under the law of the United States, civil discovery is wide-ranging and can involve any material which is relevant to the case except information which is privileged, information which is the work product of the opposing party, or certain kinds of expert opinions. Electronic discovery or 'e-discovery' is used when the material is stored on electronic media.

In practice, most civil cases in the United States are settled after discovery. After discovery, both sides often are in agreement about the relative strength and weaknesses of each side's case and this often results in a settlement which eliminates the expense and risks of a trial. Discovery of material information is obtainable by use of depositions, interrogatories, requests for the production and inspection of writings and other materials, requests for admission of facts, and physical examinations.

³³⁸ Source: <http://www2.maxwell.syr.edu/plegal/scales/court.html> (Last visited on 13 June 2010)

5.4.3.3 Cost

Patent litigation trial costs can range anything between US\$500 000 and US\$10mil depending on the complexity of the case³³⁹ and can take anything between 2 to fifteen years for trial in the first instance and another 1 to 2 years in case of an appeal.³⁴⁰

5.4.4 Remedies for infringement

5.4.4.1 Interdict

If a patent is infringed, the patent holder may sue for relief in the appropriate Federal court. The patent holder may ask the court for an injunction³⁴¹ to prevent the continued infringement.

5.4.4.2 Damages

A patentee may seek an award of damages in the case of patent infringement.³⁴² The Act provides that upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as determined by the court.

When the damages are not found by a jury, the court shall assess whether damages are due. In either event the court may increase the damages up to 3 times the amount found or assessed. The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances. A US Court can award triple damages.

³³⁹ Invention statistics website provides statistics on various issues of patents concerning filing, costs, litigation, etc summarised from a broad range of references sources and can be viewed <http://www.inventionstatistics.com/index.html> (Last visited on 13 June 2010)

³⁴⁰ See Invention statistics website

http://www.inventionstatistics.com/Duration_of_Patent_Lawsuits_Litigation_Length.html (Last visited 13 June 2010)

³⁴¹ U.S.C. Section 283

³⁴² U.S.C. Section 284

6 Invalidation of patent rights

6.1 China

6.1.1 Patent invalidation proceedings³⁴³

The Chinese Patent Re-examination Board (PRB) has sole jurisdiction over patent validity issues, regardless of whether there is a parallel patent infringement proceeding.³⁴⁴ Invalidation cases typically are decided by a collegiate panel of 3 to 5 members, including one panel chair, one chief examiner, and 1 or 3 associate examiners. Most cases are handled by a panel of 3, whereas a single member panel decides simple cases.

When a case has domestic or international significance or involves potentially large economic loss, a 5-member panel will examine and decide the case.³⁴⁵

Under Article 45 of the Chinese patent law, any entity or individual who considers the grant of a patent to be contrary to relevant provisions of the law, may request the PRB to declare the patent invalid. There is no deadline for filing such a petition as long as it is filed after the patent is granted. The patentee can also file a petition to have its patent declared partially invalid in light of certain published prior art. Grounds for filing a petition for invalidation of a patent are set forth in Rule 64.2 of the Implementation Regulations of the Chinese Patent Law (Implementation Regulations). The grounds for an invalidation request consist of patentability (the first-to-file doctrine, statutory invention, novelty, inventive steps and industrial applicability), proper support/written description, sufficiency/enableness, new matter, claims clarity, essential technical feature, and patentable subject matter.

In contrast, undue breadth of claims and lack of clarity are not valid grounds for raising opposition at the EPO. Likewise, at the USPTO, a request for re-examination can be made only on the basis of at least 1 substantial new question of patentability based on prior-art patents and printed publications.³⁴⁶

³⁴³ Where no specific reference is provided, the information is based on a distilled Opinion for Sasol from Freshfields Bruckhaus Deringer dated 3 August 2006 on Chinese Substantive Law, Report by Claire Duggan Sasol Synfuels International (Pty) Ltd

³⁴⁴ Like the Germany patent system, Chinese courts do not adjudicate the validity of the patent-in-suit. A defendant in a patent infringement suit must raise any validity challenges in a separate invalidity proceeding before the PRB. However, the existence or threat of an infringement suit is not a prerequisite for filing a patent invalidity petition

³⁴⁵ See 5 NORTHWESTERN JOURNAL OF TECHNOLOGY AND INTELLECTUAL PROPERTY 449, Volume 5, Number 3 Summer 2007, "What Multinational Companies Need to Know About Patent Invalidation and Patent Litigation in China", by Bai *et al* to be viewed at <http://www.law.northwestern.edu/journals/njtip/v5/n3/4> (Last visited on 11 June 2010)

³⁴⁶ Managing Intellectual Property, SUPPLEMENT - CHINA IP FOCUS 2006 "Patent invalidation with Chinese characteristics", Tai Hong, 01 Apr 2006 to be viewed at <http://www.managingip.com/Article/622170/Patent-invalidation-with-Chinese-characteristics.html> (Last visited on 10 June 2010)

Although there are many overlaps with the invalidation procedures of Europe and the USA, there are crucial differences that could affect IP owners' strategies. Some of these differences are discussed below.

6.1.1.1 Pre-grant opposition

The opposition system was abolished in China in 2001 and only invalidation procedures can be used to challenge a granted patent. Trial for invalidation can be filed at any time (during the lifetime of the patent).³⁴⁷

It is however possible, at any time before the grant of a patent application, for a third party to file written observations (similar to a pre-grant Observation at the EPO) with the Patent Administration Authority, against any patent application which has been published but not yet granted. There is no standard procedure as to how the observation should be handled. In practice, SIPO will make a copy of the observations available to the patent applicant and request the applicant to submit any argument in reply in writing. Such argument will not be provided to the party who filed the observations. The examiner will evaluate the merits of the observations and the argument when he examines the patentability of the invention described in the patent application. Similar to the patent opposition proceedings before the EPO, the filing party is not given the opportunity to make oral submissions and the examiner may ignore or may not fully appreciate the points raised in the observations filed.

6.1.1.2 Opposition and revocation

Validity is dealt with exclusively in Beijing by the Patent Re-Examination Board (PRB)³⁴⁸ of the SIPO. Decisions of the PRB can be appealed to the Beijing First Intermediate Peoples' Court (within 3 months). There are no formal revocation proceedings before the courts as is the case in Europe and the USA.

Although it is possible to bring an application for an invalidation proceeding in isolation and at any time after the grant of the patent, these proceedings are frequently instituted in response to a threat of infringement.

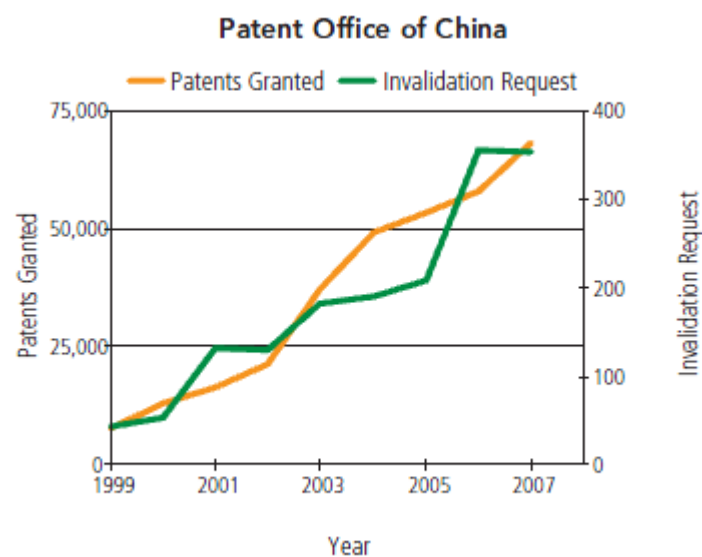
³⁴⁷ See EPO website at <http://www.epo.org/patents/patent-information/east-asian/helpdesk/china/faq.html#china> (Last visited on 10 June 2010)

³⁴⁸ According to the 2006 SIPO annual report, SIPO received 2,468 requests for invalidation, an increase of 18.26% from 2005.

In cases where invalidation proceedings are instituted during any pending infringement proceedings, the party wishing to contest the validity of a patent can apply for the stay of the infringement proceedings (dealt with by the courts). The grant of a stay is, however, not automatic (and is more likely to be granted in relation to a utility model or design patent matter than where an invention patent is concerned, as there is no substantive examination of utility model and design patents). In this regard, invalidation proceedings are often used as a tactic by the defendant to prolong the hearing of an infringement case, even though the defendant's prospects of successful invalidation may be low.

According to WIPO the number of oppositions at the patent office China has been increasing over the past few years.

Figure 8: Opposition/invalidation of patent grants in China



a) Grounds for invalidation

Unlike EPO opposition proceedings which are limited to a few specific grounds, there exists a broad range of grounds for invalidation proceedings under PRC Patent Law.

While it is possible to file an invalidation petition based upon any one of the grounds, it is a fairly common practice to file a petition on the basis that the patent at issue fails to comply with patentability requirements, insufficient disclosure, and/or amendment going beyond the original scope of disclosure.³⁴⁹

Grounds for invalidation are:

- **Unprotectable subject matter.** The subject matter of a patent is not in conformity with the definition for invention, utility model, or design patent as prescribed by the Chinese Patent Law.³⁵⁰ The subject matter of a patent is contrary to the laws, social morality, or is detrimental to public interest.³⁵¹ The subject matter of a patent is excluded under the Chinese patent law.³⁵²
- **Double patenting.** Patent rights have been previously granted to an identical patent.³⁵³
- **Unpatentability.** An invention or a utility model patent does not possess novelty, inventiveness, or practical applicability.³⁵⁴
- **Insufficient disclosure.** The description of an invention or utility model patent does not disclose the invention or the utility model in a manner sufficiently clear and complete to enable a person, skilled in the relevant field, to carry it out.³⁵⁵
- **Lack of fair basis.** The claims of an invention or a utility model patent are not supported by the specification.³⁵⁶
- **Indefiniteness.** The claims do not clearly and concisely define the subject matter for which protection is sought in terms of technical features for an invention or a utility model patent.³⁵⁷
- **Lack of essential technical feature.** The independent claim does not recite the essential technical features necessary to solve the technical problems addressed by the invention.³⁵⁸

³⁴⁹ *Supra*, Bai *et al*

³⁵⁰ Rule 2 of Implementation Regulations

³⁵¹ Article 5 of Chinese Patent Law

³⁵² Article 25 of Chinese Patent Law

³⁵³ Article 9 of Chinese Patent Law and Rule 13.1 of Implementation Regulations

³⁵⁴ Article 22 of Chinese Patent Law

³⁵⁵ Article 26.3 of Chinese Patent Law

³⁵⁶ Article 26.4 of Chinese Patent Law

³⁵⁷ Rule 20.1 of Implementation Regulations

³⁵⁸ Rule 21.2 of Implementation Regulations

- **Amendment extending original scope of invention.** The amendment to the application for an invention patent goes beyond the scope of the disclosure in the original description and claims.³⁵⁹

A request for invalidation that is not based on one of the above grounds will be rejected by the PRB.

b) Summary of procedure³⁶⁰

- The petitioner submits a request for invalidation which is reviewed by the PRN for compliance with the formal requirements and sets a time limit for the petitioner to rectify any deficiencies if it does not comply.
- The petitioner for invalidation is allowed to submit further reasons and evidence within 1 month from the date of submission of request. While it is possible for the petitioner to submit further reasons and evidence after this deadline, the PRB does not have to consider such late filed evidence.
- Once the request has been accepted, the PRB forwards the request for Invalidation to the Patentee and sets a time limit for submitting comments and/or amendments. This is usually forty-five days from the date on which the request for Invalidation was accepted.
- A panel consisting of 3 examiners is then designated for the invalidation case. For a complicated case the panel may consist of 5 examiners.
- The PRB may send further notifications and set time limits for submission of further comments and observations by both parties.
- Oral Proceedings are called in most, but not all cases.
- Decision of the PRB issues, usually approximately 3 weeks after the Oral Proceedings but occasionally at the hearing itself.

There is no legally prescribed time limit within which the PRB must reach a decision regarding a request for the invalidation of a patent right. However, invalidation proceedings generally take between twelve months and 2 years at the PRB, and a further 6 to twelve months if then appealed to the court.

³⁵⁹ Article 33 of Chinese Patent Law

³⁶⁰ *Supra* Tai Hong and Bai *et al*

c) Evidence

The petitioner bears the burden of proof and should submit evidence when initiating the invalidation proceeding. The petitioner is afforded a 1-month grace period after filing the invalidation application within which to submit additional grounds or evidence. Evidence collected outside of China must be notarised and legalised. However, patent documents that may be obtained publicly need not be notarised/legalised. Any document in a foreign language must be accompanied by a Chinese translation thereof.

d) Claim amendments

Opportunities for amendment during invalidation proceedings are extremely limited. Although the law provides that the claims can be amended as long as their scope is not broadened, the established practice of the PRB is to allow only 3 types of amendments: combination of existing granted claims, deletion of a granted claim, or deletion of an alternative in a granted claim.

Thus it is not possible for the patentee to introduce a feature from the description into the claims.

Furthermore, after the time limit for replying to the Request for Invalidation, or after the time limit for responding to new grounds or evidence (if any are filed), amendment is restricted to deletion of claims or deletion of alternatives within a claim.

The description of an invention or utility model patent may not be amended.

Unlike opposition proceedings at the European Patent Office, it is not possible to file a Main Request and several Auxiliary Requests are to be considered if the Main Request is refused. Such requests are in fact unnecessary in China because the PRB considers the validity of all of the dependent claims, as well as the independent claims. It is therefore possible for the patent to be found partially valid, i.e. for some of the claims to be found valid while others are found invalid.

e) Oral proceedings

Oral Proceedings are called in most, but not all cases. Once it has been decided to hold Oral Proceedings for a case, the PRB will issue a notification to inform both parties of the time and place of the oral hearing. If a petitioner neither makes a written reply to the notification nor attends the oral hearing, the invalidation case will be deemed withdrawn and thus the invalidation procedure will be concluded.

Oral Proceedings are similar to court sessions, including questioning of evidence, identifying facts, and debate by the 2 parties. It is possible to submit further written comments within about 3 days after the Oral Proceedings with agreement of the panel. Usually the decision is issued in writing about 3 weeks after the Oral Proceedings.

f) Decision of the Patent Re-examination Board (PRB) and appeal

The PRB decision can be to find the entire patent valid, or the entire patent is invalid, or the patent is partially valid. Once a decision is issued by the PRB, any party (or parties) adversely affected by it may bring an action within 3 months of the date on which the notification is received in the Beijing No.1 Intermediate People's Court. In the lawsuit, the PRB is the defendant and the winning party in the invalidation procedure is involved as a third party who is allowed to argue its own position. Any party dissatisfied with the court decision may appeal to the Beijing Higher People's Court within fifteen days (thirty days for a foreign party) of receiving the decision. It will take the court about 6 months to reach the appeal judgment. The appeal judgment is final.

g) Effect of invalidation

A patent which is declared to be invalid is deemed not to have ever existed at all.³⁶¹ However, the invalidation decision does not have retroactive effect on any judgment or ruling of patent infringement that has already been pronounced, complied with or enforced by the court or administrative authorities. Nor does it have any effect on any licence or assignment contract which has been performed. However, any damage caused to another due to bad faith on the part of the patentee, should be compensated.

³⁶¹ Article 47 of Chinese Patent Law

The patentee or assignor of the patent may be required to make a repayment, in whole or in part, to a licensee or assignee under the principles of equity.

h) Stay of infringement proceedings

Chinese courts try infringement and validity separately. It is common for the defendant to file a Request for Invalidation to the PRB in response to an infringement action. It depends on the court whether the infringement proceedings are then stayed until the validity of the patent has been determined (by the PRB or a court on appeal). Usually, the infringement proceedings for a utility model or design patent right will be stayed.

i) Withdrawal of request for invalidation

If the petitioner withdraws their request for invalidation then the proceedings are ended. The PRB will not continue to examine the case of its own motion. Such withdrawal is often requested if the 2 parties have reached a settlement.

j) Costs

Official fees for patent invalidation proceedings before the PRB and for the prosecution of a law suit and for the hearing of any subsequent appeal before the various courts are in the order of US\$360 respectively. Any court fees are to be borne by the losing party. Domestic Chinese counsel fees are calculated on an hourly basis. This would vary depending on the complexity of the matter, but could typically be expected to be in the region of around US\$4,000-8,000 for running an invalidation case (including drafting the invalidation grounds, filing documents and attending hearings, but excluding any fee for conducting searches to locate prior art documentation), and between US\$7,000 and US\$20,000 for an appeal to a higher court. This does not include foreign counsel's professional fee.

6.1.2 Relevance of European Patent Office (EPO) opposition proceedings

Assuming the claims of the relevant Chinese patent and a European counterpart thereof are identical,³⁶² any decision of the EPO should be persuasive in China since the test of patentability in China is similar to that of the EPO.

³⁶² See Language Barriers above

However, to the extent that the claims of the Chinese patent have been amended (in response to any official actions) and deviate from those of the corresponding European patent, it will be necessary to obtain an opinion from Chinese counsel as to whether the grounds of opposition used in the European opposition proceedings will be sufficient to invalidate the Chinese patent.

6.2 Japan

6.2.1 Patent invalidation proceedings

Invalidation of a patent can be obtained either by means of invalidation proceedings before the patent office, or by asserting invalidity of a patent in infringement litigation.

For over a hundred years, in patent infringement actions in Japan it was not possible to assert patent invalidity as a counterclaim. For a defendant in a patent infringement case to claim that the patent should be invalidated, an invalidation request had to be made to the Patent Office, and a petition to stay the legal proceedings had to be filed to the court hearing the infringement case.³⁶³ This legal procedure was revoked in the Kilby³⁶⁴ patent case, decided by the Supreme Court in 2000.

This was reflected in a major amendment³⁶⁵ to Japanese law (which came into effect in 2005), allowing invalidity to be raised formally as a defence to infringement.³⁶⁶

Rather than arguing merely that a patent appears to be invalid and thus should not be enforced, the Court has been able formally to decide that the patent is invalid. This decision however will be binding only on the parties, as the power to revoke the patent will remain with the JPO.

What is unique to Japan is that when the court makes a patent invalidation judgment in a patent infringement action, the decision is binding only on the parties to the action and not on any third parties.³⁶⁷

³⁶³ IP Management, SUPPLEMENT - JAPAN IP FOCUS 2007 4TH EDITION Five patent law quirks you need to know 01 Sep 2007 Japan's patent enforcement regime has some unique characteristics. Yukio Nagasawa of Shobayashi International Patent & Trade mark Office outlines a few that foreigners should be aware of to be found at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1408985&issueID=> (Last visited on 13 June 2010)

³⁶⁴ Fujitsu Ltd. vs. Texas Instruments Inc. Tokyo Supreme Court April 11, 2000 that can be viewed at http://cdnet.stpi.org.tw/techroom/pclass/complaint/Complaint_pclass_10_A046_Intravidual%20Inc.%20v.%20Fujitsu%20Microelectronics.pdf (Last visited on 13 June 2010)

³⁶⁵ Transforming intellectual property in Japan, Professor Ruth Taplin, July 2007, Thompson Reuters to be found at <http://scientific.thomsonreuters.com/img/knowledglink/8398180/8398184/japan.pdf> (Last visited 13 June 2010)

³⁶⁶ Patent amendment Law of 1 April 2005 added new Article 104-3(1) which provides that "In a patent infringement action the patentee may not enforce the patent if the patent should be invalidated by a patent invalidation trial". This provision means that a defence of invalidity of the patent may be raised in an infringement action before the court without regard to filing of an invalidation action in Patent Office of Japan.

³⁶⁷ Presentation at AIPLA Spring Meeting, 9 May 2007, "Post-Kilby Developments in Japanese Patent Litigation – Claim of Invalidity", Boston, MA USA, by Iguchi et al of Tokyo, Japan http://www.aipla.org/Content/Microsites152/IP_Practice_in_Japan/Committee_Meetings/2007-

The patent rights holder is therefore allowed to enforce patent rights against any third parties. To have the invalidation of the patent in full force and effective on third parties, an invalidation request must be made to the Patent Office to obtain a board decision on the patent's invalidation.

6.2.1.1 Pre-grant opposition

Japanese law relating to challenging a patent has undergone significant change over the last 10 years. Prior to 1996 the opposition period was 3 months from the date of publication of the examined application (pre-grant opposition system). From 1 January 1996 onwards, opposition was possible within 6 months of the publication date of the granted patent (post-grant opposition system). On 1 January 2004 opposition was abolished³⁶⁸ and invalidation became the only means of challenging the granted patent.³⁶⁹

The pre-grant opposition system was replaced on 1 January 1996 with a post-grant opposition system, due to delays in the issuance of a patent subject to pre-grant attack and perceived harassment on patent applicants.³⁷⁰ Prior to its abandonment, the pre-grant opposition system was used primarily as corrective measure to rectify a mistaken decision of the JPO in the granting of a patent, which was a public benefit.

6.2.1.2 Opposition and revocation

Prior to 2004, in Japan, once a patent had been granted, it was published for opposition in the Patent Gazette. Any third party may file an opposition to the grant of a patent within 6 months of publication for opposition. Alternatively patents could be invalidated by an invalidation trial. Under the 2004 law, this dual system is no longer possible and has been replaced by the Trial for Invalidation. The aim of the change was two-fold: to prevent problems caused by the two co-existing systems (unnecessary confusion and delay due to repeated challenges against the same patent by multiple oppositions, and later-filed invalidation appeals invoked by dissatisfied challengers);

05_Japan_Committee_Spring_Meeting/Presentation_for_May_2007_Japan_Committee_Spring_Meeting/AIPLA-Spring-2007-Naoki-Iguchi-v2.pdf ; see also World Intellectual Property Report, January 2007, "Comparison of invalidity decisions in Japan between the courts and trials for invalidation at the JPO, Tachibana et al on http://www.saegusa-pat.jp/info/tachibana/tachibana_0704.pdf (Last visited on 13 June 2010)

³⁶⁸ <http://www.jpaa.or.jp/english/law/2003amendment.html>

³⁶⁹ See the EPO Website – Asian helpdesk at <http://www.epo.org/patents/patent-information/east-asian/helpdesk/japan/faq.html#oppo> (Last visited on 13 June 2010)

³⁷⁰ The Patent Prospector website, abstract from "PAST AS PROLOGUE FOR PATENT REFORM: EXPERIENCE IN JAPAN WITH OPPOSITIONS SUGGESTS AN ALTERNATIVE APPROACH FOR THE U.S.", (Dale L. Carlson and Robert A. Migliorini, 88 J. Pat. & Trade mark Off. Soc'y 101, February 2006, at http://www.patenthawk.com/blog/2007/11/opposition_to_opposition.html (Last visited at 13 June 2010)

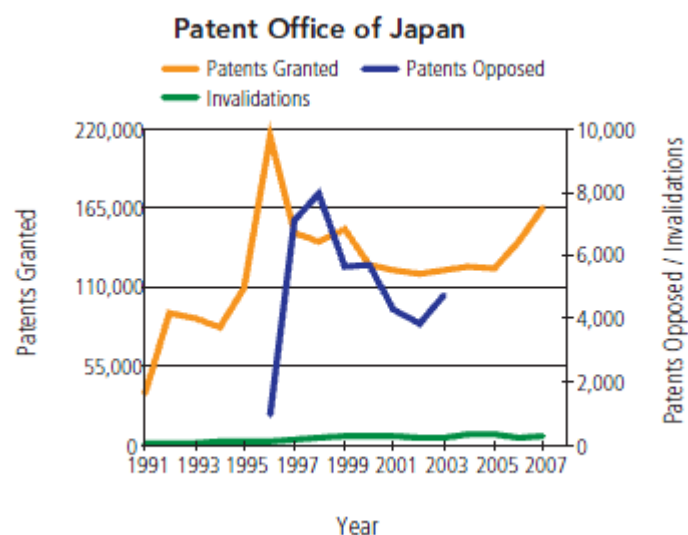
and to improve the system to meet the needs of a variety of users (for example, relaxing the time period allowed for oppositions, and expanding third party involvement).

6.2.1.3 Trial for invalidation

Any party may demand the commissioner of the patent office a trial for invalidation of a patent against the patentee.³⁷¹

According to WIPO, the number of oppositions at the patent office Japan declined for the period between 1997 and 2003, with the invalidation trials showing a slight increase over the past few years.

Figure 9: Opposition/invalidation of patent grants in Japan



a) Grounds

The grounds for invalidation are set out in Article 123 and are similar to the grounds for an examiner's rejection of an application. However, grounds based on claims conforming with patent rules requirements and unity of the invention, is not available in an invalidity trial.

³⁷¹ Article 123 (Japanese Patents Act)

A patent owner's loss of foreign priority or benefits of the provisions of a treaty and failure of corrections to the specification or claims to meet with statutory requirements, are additional bases for initiating an invalidity trial.³⁷²

b) Summary of procedures

Any third party may demand the commissioner of the patent office a trial for invalidation of a patent against the patentee.³⁷³ A group (3 or 5 trial examiners³⁷⁴) conducts the trial gathering at the patent office.³⁷⁵ The patentee may demand restriction of claims or correction of errors or ambiguity³⁷⁶ to avoid the invalidation. Japanese invalidity trials are heard by a JPO appeal board. An appeal from a decision of the Board of Appeal may then be made to the Tokyo High Court. A party who is not satisfied with the decision of the Tokyo High Court may appeal to the Supreme Court.

c) Evidence

Evidence presented by the parties, but Trial Examiner can uncover their own evidence by conducting their own search. At the Tokyo High Court appeal stage, parties have great latitude to introduce new evidence such as newly uncovered references closer to the claimed invention. However, they cannot introduce new issues.³⁷⁷

d) Claim amendments

In an invalidity trial, the patent owner will always be given an opportunity to narrow the claims through amendment to avoid invalidation of the entire patent. One of the reasons why dependent claims, which are narrower than an independent claim, are not always necessary in Japanese practice, is that in the event additional prior art is presented in an invalidity trial, the patent owner can simply narrow the existing claims to eliminate that art. The invalidity appeal will be delayed pending review of an amendment.

³⁷² See JPO patent office website, GUIDELINES FOR WRITTEN OPPOSITION TO A GRANTED PATENT AND DEMAND FOR CORRECTION", published March 1999 on http://www.jpo.go.jp/cgi/link.cgi?url=/tetuzuki_e/t_tokkyo_e/opposition_guide.htm (Last visited on 13 June 2010)

³⁷³ Article 123 of Japanese Patent Act

³⁷⁴ Article 136 of Japanese Patent Act

³⁷⁵ Article 145 (1) and 145 (3) of Japanese Patent Act

³⁷⁶ Article 134bis, of Japanese Patent Act (added in 2003)

³⁷⁷ Managing Intellectual Property, May 2005, How to challenge patent Validity, Yoshinari Kishimoto, at [http://www.sughrue.com/files/Publication/4e04d0af-555d-4af9-8828-20983bb31da3/Presentation/PublicationAttachment/42915bdd-6b16-47ac-9357-2a17030b9b3d/YoshiMIPArticle\(1\).pdf](http://www.sughrue.com/files/Publication/4e04d0af-555d-4af9-8828-20983bb31da3/Presentation/PublicationAttachment/42915bdd-6b16-47ac-9357-2a17030b9b3d/YoshiMIPArticle(1).pdf) (Last visited on 13 June 2010)

e) Effect of invalidation

If the patent is invalidated by the Patent Office in an invalidation action and that decision becomes final, or an appeal mean is exhausted, the patent is invalid and deemed to have not existed from the beginning.

f) Stay of infringement litigation

A lawsuit against patent infringement may be suspended until a trial decision of the patent office has become final and conclusive.³⁷⁸

g) Costs

The costs for an invalidation trial are relatively inexpensive. The Japan Patent Attorneys Association's survey in 2003 reports an average cost of ¥377,534 (about \$3,500) on a per claim basis for a trial for invalidation in the JPO, with over 75 per cent of those responding to the survey reporting an average fee in the range from ¥360,000 to ¥420,000. One can get some insight into what a patent trial is likely to cost in Japan based on the Civil Litigation Lawyers' Fees Guidelines that are put forth by the Japan Federation of Bar Associations (Nichibenren). They suggest that, if the plaintiff's demand for damages is in the ¥30-300 million range, then the starting fee is [3 per cent + ¥690,000] and the success fee is [6 per cent + ¥1,380,000], which amounts to about \$325,000 in lawyers' fees for a successful patent lawsuit involving about \$3,000,000 in damages. In sum, the typical cost for a patent trial in Japanese costs can be as much as a hundred times more expensive than a trial for invalidation in the JPO.³⁷⁹

6.3 Europe

6.3.1 Patent invalidation proceedings

As enforcement is a matter of national jurisdiction, so is that of invalidation, with the exception of the EPC patent opposition proceedings as discussed below.

³⁷⁸ Article 168 (2) of Japanese Patents Act

³⁷⁹ Paper by Japan Institute of Intellectual Property, IIP Bulletin 2004, Chapter 13, page 100 – 105, "A Comparative Appraisal of Patent Invalidation Processes in Japan", Kesan, on http://www.iip.or.jp/e/e_summary/pdf/detail2003/e15_13.pdf (Last visited on 13 June 2010)

6.3.1.1 Pre-grant opposition

Article 115 EPC³⁸⁰ provides for third party observation proceedings: *‘In proceedings before the European Patent Office, following the publication of the European patent application, any third party may, in accordance with the Implementing Regulations, present observations concerning the patentability of the invention to which the application or patent relates. That person shall not be a party to the proceedings.’*

In effect these are pre-grant opposition proceedings to which the opponent should introduce materials relevant to patentability along with an explanation of their relevance. The observations are transmitted to the applicant by the EPO, and the EPO Examiner can raise an objection based on the observations if he sees fit. The observing party does not take part in the proceedings. This is similar to the re-examination proceedings under US Patent Law.

6.3.1.2 Opposition and revocation

There are only 2 types of centrally executed procedures after grant, the opposition³⁸¹ procedure and the limitation and revocation³⁸² procedures.

Once a European patent has been granted, it is open to opposition by any third party who has reason to believe, and can substantiate, the invalidity of the granted patent.³⁸³ The opposition deadline is 9 months from the date of grant. This period is not extendable.

According to WIPO the number of oppositions at the EPO has been increasing over the past few years. See Figure 10.

a) Grounds

The main grounds³⁸⁴ of opposition are non-patentable subject matter (e.g. mathematical methods, aesthetic creations, methods for doing business, presentation of information, medical methods etc.); lack of novelty; lack of inventive step; lack of industrial applicability; lack of clarity and added matter or broadening of claims.

³⁸⁰ Amended by the Act revising the European Patent Convention of 29.11.2000 as can be viewed on EPO website at <http://www.epo.org/patents/law/legal-texts/html/epc/2000/e/ar115.html> (Last visited on 13 June 2010)

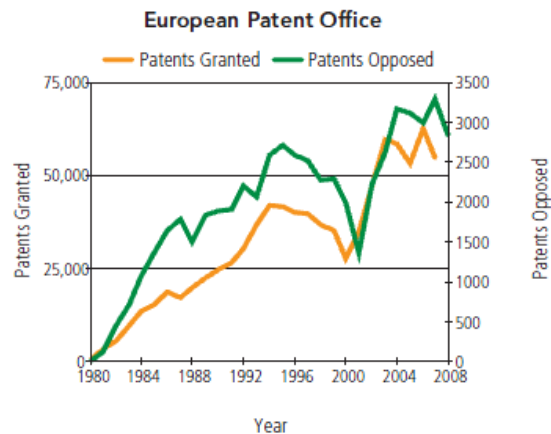
³⁸¹ Article 99 EPC

³⁸² Article 105 EPC2000 now allows the Patentee an opportunity to request limitation or even revocation of his patent.

³⁸³ Article 99 EPC

³⁸⁴ Article 100 EPC

Figure 10: Opposition/invalidation of patent grants at the EPO



In the majority of cases, the 2 most important grounds of opposition turn out to be novelty and inventive step.

b) Summary of procedure

It is a quasi-judicial process subject to appeal, which can lead to maintenance in amended form or revocation of a European patent. When an opposition is filed, it must include all the relevant information and prior art that is relied upon.

However, it is possible during the opposition proceedings to introduce new arguments and new items of prior art, though in general new prior art will not be admitted unless it is at least as relevant as the prior art already in the proceedings.

Typically, the procedure for an opposition will involve the filing of a counterstatement by the patentee, further rounds of submissions from both opponent and patentee, and then the Opposition Division (OD) will issue an interim decision and appoint Oral Proceedings (a hearing). At this hearing a decision will be made that is subject to appeal, i.e. either maintain the patent or the OD revokes the patent if it is of the opinion that the grounds for opposition prejudice the maintenance of the EP (Art. 102(1) EPC). Or it may reject the opposition if it is of the opinion that the grounds for opposition are not sufficient for revocation (Art. 102(2) EPC).

In the case that the EP has been amended by the patentee and the OD is of the opinion that the EP in the amended form fulfils (all) the patentability criteria of the EPC, it decides to maintain the patent as amended. This is usually done in an interlocutory decision (separate appeal allowed).

The lodging of an Appeal is a purely procedural step but detailed Grounds of Appeal must be submitted within 4 months of the date of the Decision which is being appealed. The Appeal procedure is similar to the Opposition procedure in that it consists of grounds of appeal from the Opponent, a reply to the grounds of appeal by the respondent, possible further submissions from both parties and thereafter the Appeal Board will issue an interim Decision and appoint Oral Proceedings.

The Board of Appeal at Oral Proceedings will consist of a chairman and 2 further members and again, the proceedings are quite focused. At the end of the Oral Proceedings a Decision is taken and this will be the final Decision.

No further Appeal is possible other than on points of law and then only with leave. Such a further Appeal would go to the Enlarged Board of Appeal (see below). These are very rare. Generally, the Decision of the Appeal Board is final and will be confirmed in writing after the Oral Proceedings. In general, opposition proceedings can take about 3 years and the Appeal proceedings from 2 to 3 years after that.

c) Evidence

In addition to the grounds for opposition, each of these grounds has to be substantiated in the opposition brief with facts, evidence and arguments.

These facts, evidence and arguments have to be presented in a way that is understandable and may be examined by the OD and the proprietor. Otherwise, the opposition is rejected as inadmissible. Examples of inadmissible substantiation have been decided to be: a general statement that the EP is not novel or not inventive with respect to the documents cited in the European search report; a citation of prior art; relying on a 200 page document without identification of relevant passages.

If prior public use (in the context of novelty and inventive step) is raised as ground for opposition, sufficient substantiation needs to include the date of prior use, the exact subject matter which has been used and the circumstances of such prior use.

d) Claim amendments

A European patent application or a European patent may not be amended in such a way that it contains subject matter which extends beyond the content of the application as it was filed;³⁸⁵ the claims can not be broadened.³⁸⁶ However, a change of category, for example from a claim to a composition as such to a particular use, is permitted if the change does not result in anything that would not have been an infringement of the unamended patent becoming an infringement of the amended patent.

e) Oral proceedings

Oral proceedings have to be explicitly requested by any party in the course of the opposition proceedings prior to a decision being given, or if the OD considers it expedient. After the communication of the opposition to the proprietor, and optionally after communication of the proprietor's statements or further counter or counter-counter-(*ad.lib.*)-statements, the parties are summoned to oral proceedings by the OD (minimum period: 2 months). When issuing the summons, the OD communicates the points which in its opinion need to be discussed for the purposes of the decision to be taken. A final date for making written submissions in preparation for the oral proceedings is fixed.

If accompanying persons will attend the hearing (inventor, foreign patent attorneys, members of the patent group of the client, etc.), their names and the topic of their potential contribution should be provided in the preparatory statements.

New facts and evidence presented after that date need not be considered by the OD, unless it is considered to be highly relevant and good reason can be presented for its late introduction.

³⁸⁵ EPC Article 123(2)

³⁸⁶ EPC Article 123(3)

At the start of the oral proceedings the parties and representatives are identified and the requests are brought forward again. The agenda of the oral proceedings is typically designed to clarify formal aspects; Article 123(2) and enablement (Article 83); for new claims: Article 123(3) (extension of granted claims is forbidden) and Article 84 (clarity of claims) first and to address material questions (novelty, inventive steps) afterwards. A typical oral proceeding before the OD at the EPO has the following agenda: Article 123(2) and (3); clarity; enablement; novelty; inventive step. Each of these issues is separately decided by the OD and may not be discussed afterwards, even when it overlaps between certain points (as e.g. between enablement and clarity, between enablement and inventive step and between novelty and inventive step).

Oral proceedings will be before an Opposition Board which will comprise a chairman and 2 other members, one of whom may be the original Examiner. The members of the Opposition Board will be experts in the field of invention. Opposition proceedings are extremely focused and rarely last more than 6 hours. At the end of the oral proceedings, a Decision is announced. Opposition oral proceedings are open to the public but other than under exceptional circumstances, only authorised representatives before the European Patent Office are permitted to speak.

Following the oral proceedings, the decision is issued in writing and this sets a 2-month period for lodging an appeal.³⁸⁷

f) Effect of decision

The outcome of an EPO opposition proceeding may be the revocation of the European patent, confirmation of the original patent claims or amendment of the patent claims.

The opposition applies to the European patent in all designated offices. However, the specific outcome's effect on the different designated states may differ as a result of differences in claims, differences in amendments and differences in designated States where the patent is revoked.

³⁸⁷ Article 106 EPC

In case of maintenance of an European patent in amended form, the patentee has to attend to the filing of translation of patent claims of amended patent into the 2 official languages which are not language of proceedings; payment of printing fee for new patent print at EPO and the filing of translation of amended patent and payment of official national fees in designated states, where patent is to remain effective.

g) Possible review by the Enlarged Board of Appeal

Under the EPC 1973, no party could file an appeal against a Board of Appeal decision, even if a fundamental procedural violation prejudiced one of the parties. The finality associated with an EPO Board decision rendered the decision immune to review at the national level. The EPC 2000 now affords a limited possibility of further judicial review for applicants, patentees and opponents adversely affected (that is, unsuccessful) by a Board of Appeal decision.³⁸⁸ Such party may petition for a review by the Enlarged Board of Appeal but only on certain enumerated grounds, including an alleged fundamental procedural violation or a criminal act that had a prejudicial impact on the decision.

A fundamental procedural violation must be characterised as substantial including situations, where a Board of Appeal composition included an improper member who should have been excluded, or where a party was significantly hindered in fully presenting his case, thereby incurring a fundamental violation of the right to be heard (a party's right to be heard is of paramount importance and is safeguarded by Article 113 EPC 1973/2000). Only those criminal acts that are finally established by a competent national court or authority can constitute a valid ground for petition of review, that the perpetrator's act was adjudged to violate a valid criminal statute resulting in conviction in a particular contracting state.

Under no circumstances can a petition for review be used by an adversely affected party as a means for examining whether EPC substantive law was properly applied during the earlier proceedings. Furthermore, there is no suspensive effect associated with the earlier (defective) judgment.

³⁸⁸ Article 112a; Rules 104-110 EPC 2000

A revoked patent remains revoked and a third party using the subject invention in good faith, may continue to do so without payment or penalty until the publication date of the final Enlarged Board decision on the petition. A successful petition before the Enlarged Board results in a decision that overturns the earlier Board of Appeal decision and the ensuing *res judicata* effect, and remands the case back to this Board for further consideration.

h) Stay of infringement proceedings

National infringement proceedings and opposition proceedings at the EPO are independent proceedings. Simultaneously to the opposition, a European patent may be the subject of litigation at a national level (for example an infringement dispute). If infringement proceedings have been instituted against a third party, this party may intervene in pending opposition proceedings after the opposition period has expired.³⁸⁹ National courts may suspend such infringement proceedings pending outcome of the opposition proceedings, to avoid proceedings running in parallel and the uncertainties that may arise from that.

In the case of an intervention by an alleged infringer, the alleged infringer has to file a notice of intervention and pay the opposition fee within 3 months of the date on which the infringement proceedings were instituted.

The intervener may file new grounds, facts and arguments in this notice of intervention. He is not bound to the extent and the grounds already brought forward in the proceedings.

Early initiation of infringement proceedings during (or even before) pending opposition proceedings at the EPO is also in view of a high likelihood of staying, always recommendable when actions of alleged infringers may become statute barred. The limitation periods vary³⁹⁰ in the EPC member countries.

These are: 3 years in Austria, France and Germany; 5 years in Belgium, Denmark, Greece, Italy, Spain and Sweden; 6 years in Ireland and in the United Kingdom; 1 to 10 years in Switzerland;

³⁸⁹ Art. 105 EPC

³⁹⁰ FICPI Open Forum Papers, Monte Carlo, 3-6 Nov 1999, Paper MC/1.7 ALGE, Vienna " OPPOSITION PRACTICE AT THE EPO" at <http://www.ficpi.org/library/montecarlo99/opposition.html> (Last visited on 13 June 2010)

no statute of limitations in Luxembourg; in the Netherlands, damages are claimable only from the period commencing thirty days after a writ has been served on the alleged infringer. In some countries there is room for the concept of an 'innocent infringer' who was not aware of the patent (DK, FR, NL, ES, SE, IE and UK).

i) Costs

In opposition proceedings each party bears its own costs. The OD may order a different apportionment of costs 'for reasons of equity' (Article 104 EPC), e.g. if one party has caused the other additional expense, e.g. by filing evidence late, or otherwise abusing the proceedings. The costs associated with opposition proceedings, especially where oral proceedings are included, vary widely, depending on whether the proceedings are before an Examination or Opposition Division or Board of Appeal and the difficulty of the case. Significant factors contributing to cost include extent and complexity of prior art, extent and number of written submissions, time spent preparing for the hearing, number of parties (in opposition and appeal) and length of hearing.

6.3.1.3 Limitation on revocation

A patent proprietor may request the revocation or limitation³⁹¹ of its own patent. The proprietor can file the request at any time after grant, after opposition proceedings or even after expiry of the patent.

However, a request for revocation or limitation filed while opposition proceedings in respect of the European patent are pending is deemed not to have been filed,³⁹² since the opposition proceedings have precedence. If limitation proceedings are pending at the time of filing of an opposition, the limitation proceedings are terminated and the limitation fee is reimbursed.

The subject of limitation or revocation proceedings is the European patent as granted or as amended in opposition or (earlier) limitation proceedings. Since limitation is effected by means of amendment of the claims, the request must include a complete set of the amended claims (and the description and drawings if applicable).

³⁹¹ Articles 105a and 105b, EPC

³⁹² Article 105a(2), Reg 93(1) EPC

If these or the general requirements regarding languages and representation are not met, the Office invites you to correct any deficiencies within a period to be specified, normally 2 months. If you do not correct the deficiencies within this period, the request is rejected as inadmissible. Re-establishment of rights is however available. The decision rejecting the request is open to appeal.

If the request is for revocation and is admissible, then the examining division revokes the patent and communicates this to the requester. The decision takes effect on the date on which it is published in the European Patent Bulletin.

It applies *ab initio* to all contracting states in respect of which the patent was granted. It is not possible for the patent to be revoked for some contracting states and not for others.

If the request for limitation is admissible, the examining division proceeds with its examination of the request. The basis for the examination is the patent as granted or amended in opposition or limitation proceedings. Where there have already been both opposition and limitation proceedings, then the basis for the examination is the patent as amended in the most recent of the procedures. The examining division only examines whether the amended claims constitute a limitation with respect to the claims as granted or amended and whether they are clear and concise and supported by the description and do not contain subject-matter which extends beyond the application as it was filed.

The term 'limitation' means a reduction in the scope of protection of the claims. Clarifications or changes made simply to protect different subject-matter are not considered to be limitations. If there are any deficiencies, you will be invited to correct them within a period generally set to 2 months.

If the request for limitation is allowable, proprietor will be informed accordingly and invited to pay the prescribed fee for an amended specification and to file a translation of the amended claims into the other two official languages within a period of 3 months. The procedure for this is the same as in opposition proceedings.

If fees are paid and the translations filed as set out above in due time, then the examining division will limit the patent. If not, the request will be refused. The European patent specification as limited will be published and a new certificate issued to proprietor.

The decision to limit the European patent takes effect on the date on which it is published in the Bulletin. The effect of the decision to limit the patent is that the patent is limited *ab initio*.

Post the opposition period all EPC patents are to be invalidated on a national basis and can be done at any time during the life of the patent. It is to be noted that in some jurisdictions, such as Germany validation and infringement proceedings are heard separately, i.e. invalidity cannot be used as counterclaim against infringement in the same proceedings. The basis for invalidation of patents are different in the various national jurisdictions but in essence the basis for invalidation on proof of lack of novelty, lack of inventive step and lack of industrial application remains categorically the same.

6.4 USA

6.4.1 Patent invalidation proceedings

The validity of an issued patent is subject to challenge in an infringement proceeding.³⁹³ Defendants in infringement suits usually raise the defence of patent invalidity, asserting that the invention covered by the patent was not novel or non-obvious. It is not unusual for a patent infringement suit to result in a determination that the US Patent and Trade mark Office made a mistake in granting the patent.

6.4.1.1 Pre-grant opposition

The only forms of pre-grant opposition proceedings are the interference proceedings discussed earlier and the very limited³⁹⁴ third party protest proceedings.³⁹⁵ An interference (also known as priority contest) is an *inter partes* proceeding to determine the priority issues of multiple patent applications. When 2 patent applications are filed which set forth claims directed to the same subject matter, the patent office may declare an 'interference' and require that each of the parties appear before the patent office to determine who was the earliest to discover the claimed invention. Alternatively any party which has failed to file a patent application on time may use this procedure to challenge the inventorship of another party which has a granted or pending patent, if certain requirements are met.

³⁹³ Patent, Trade mark, and Trade Secret, By *Mark F. Radcliffe* and *Diane Brinson* of DLA Piper US LLP to be found at <http://library.findlaw.com/1999/Jan/1/241479.html> (Last visited on 13 June 2010)

³⁹⁴ A protester generally has no role in the matter AFTER all papers are properly filed (which is a complex undertaking to gather and serve and file). In contrast, the party requesting a re-examination has an involved role after filing and therefore a chance to influence the outcome and is a better alternative. See discussion on re-examination later in this Chapter.

³⁹⁵ 37 C.F.R. 1.291 (see http://www.uspto.gov/web/offices/pac/mpep/documents/1900_1901.htm (Last visited on 15 June 2010))

This ‘interference practice’ is not followed in most other jurisdictions, because it is obviated by the ‘first-to-file’ system used in most countries. During an interference, parties may submit evidence supporting their contention to be the earliest inventor, and the patent office issues a decision following the trial-like interference process.

A protest may be filed by a member of the public against a pending application and will be placed on the prosecution file if the patent application is clearly identified. The protestor must provide a list and copies of the supporting prior art and a concise explanation of the relevance of each item listed. The protestor does not become party to the further prosecution³⁹⁶ of the patent and will not receive any communication other than acknowledgement of receipt from the USPTO, and as a matter of law,³⁹⁷ the patent applicant does not have to respond to the protest. The examiner will only consider such a protest if it is submitted in time, i.e. the protest was filed prior to the date the application was published under § 1.211,³⁹⁸ or a notice of allowance under § 1.311³⁹⁹ was mailed, whichever occurs first.

The protestor may file a second protest in the same case identifying it as a second or subsequent protest by the same party in interest, accompanied by an explanation as to why the issue(s) raised in the second or subsequent protest are significantly different than those raised earlier, and why the significantly different issue(s) were not presented earlier.

6.4.1.2 Opposition (request for re-examination) and revocation

There is no post-grant opposition procedure as we know it in the EPO, Japan or China. USA provides for revocation proceedings as a counterclaim in a patent infringement suit as well as re-examination proceedings. US Congress introduced *ex parte* re-examination in 1980 to provide a vehicle for a third party or patent owner to obtain re-examination of a patent.⁴⁰⁰

Ex parte re-examination of patents and its procedure were established by Congress to serve as an expedited, low-cost alternative to patent litigation for reviewing only certain aspects of patent validity, based on patents and printed publications.

³⁹⁶ 37 CFR 1.291(2)(d)

³⁹⁷ 37 CFR 1.291(2)(f)

³⁹⁸ Publication of US patents eighteen months after application – see

http://www.uspto.gov/web/offices/pac/mpep/documents/appxr_1_211.htm#cfr37s1.211 (Last visited 15 June 2010)

³⁹⁹ 37 CFR S1.311 http://www.uspto.gov/web/offices/pac/mpep/documents/appxr_1_311.htm#cfr37s1.311 (Last visited on 15 June 2010)

⁴⁰⁰ Pub. L. 96-517, 94 Stat. 3016, § 1 (1980).

Re-examination refers to the process of requesting that the patent office once again subject an issued patent to further examination, accompanied by supporting evidence. In these *ex-parte* proceedings requestors were not allowed to participate in the process.

In 1999 the American Inventors Protection Act (AIPA) created the *inter partes* re-examination procedure as an optional alternative to the *ex parte* procedure. The *inter partes* procedure is limited, however, to patents that issued from applications filed on or after 29 November 1999.

The *inter-partes* procedure affords third-party requesters much greater participation in patent re-examinations, as under this procedure a third-party requester can provide written comments on each of the patent owner's written submissions to the Patent Office; present new arguments and submit new evidence in rebuttal if the patent owner raises new issues or presents new evidence; and appeal an adverse re-examination decision to the Patent Office's Board of Appeals (but, unlike the patent owner, under the AIPA the requester did not have the right to appeal an adverse decision to a federal court).⁴⁰¹

Re-examination may be requested not only by the patent holder or inventor, but by anyone, although whoever requests re-examination must also submit a fee which is as high as the full cost of filing a new patent application. A benefit of re-examination is that issued patents may be either invalidated or once again deemed valid, without the considerable cost and lengthy time required for a full infringement lawsuit or declaratory judgment action. The disadvantages of the process is that in the event re-examination does not invalidate or significantly narrow the claims of a patent, it can leave the patent stronger than before. A third-party requester is estopped from asserting invalidity in a later litigation on any ground raised or that could have been raised in the *inter partes* re-examination.

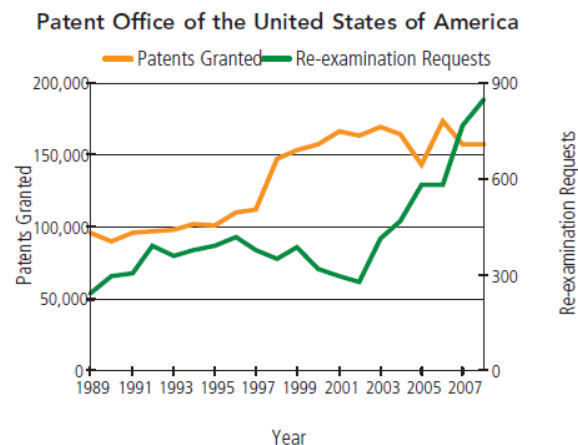
The statute provides that the estoppel does not apply to newly discovered prior art, not available to the requester at the time of the re-examination. This process should thus be used with caution. The re-examination process is likely to take at least 1 to 2 years.⁴⁰²

⁴⁰¹ See the USPTO website report on inter-partes re-examination at http://www.uspto.gov/web/offices/dcom/olia/reports/reexam_report.htm (Last visited on 13 June 2010)

⁴⁰² Intellectual Asset Management (IAM) Magazine, IP Value 2010 - Building and enforcing intellectual property value, "United States – Re-examination: a dagger and a shield for impacting IP Value", pp 67 -70, Keane

The number of oppositions (re-examination and invalidation requests) at the patent offices of the United States of America has been increasing over the past few years. See Figure 11 below from the WIPO patent statistics report.⁴⁰³

Figure 11: Re-examination of patent grants at the USPTO



a) Grounds

Re-examination can only be requested on the basis of lack of novelty, the ‘substantial new question’ (SNQ) requirement. As such it cannot include arguments relating to public use/on sale bar, inequitable conduct, 35 U.S.C §112, or statutory subject matter. As such SNQs must be based on patents and/or printed publications only.

For ‘a substantial new question of patentability’ to be present, it is only necessary that (i) the prior art patents and/or printed publications raise a substantial new question of patentability regarding at least one claim, i.e., the teaching of the (prior art) patents and printed publications is such that a reasonable examiner would consider the teaching to be important in deciding whether or not the claim is patentable; and (ii) the same question of patentability as to the claim has not been decided by the Office in a previous examination or pending re-examination of the patent, or in a final holding of invalidity by the Federal Courts in a decision on the merits involving the claim.

⁴⁰³ WIPO World Intellectual Property Indicators Report Statistics for 2009 available at http://www.wipo.int/export/sites/www/ipstats/en/statistics/patents/pdf/wipo_pub_941.pdf (Last visited on 15 June 2010)

It is not necessary that a '*prima facie*' case of unpatentability exists as to the claim in order for 'a substantial new question of patentability' to be present as to the claim.

Thus, 'a substantial new question of patentability' as to a patent claim could be present even if the examiner would not necessarily reject the claim as either fully anticipated by, or rendered obvious in view of the prior art patents or printed publications.⁴⁰⁴

b) Summary of proceedings

The Rules of Practice governing *ex parte* re-examination are provided in MPEP § 1.510 - 1.570 as well as Chapter 2200.⁴⁰⁵ 37 C.F.R. 1.552 defines the scope of re-examination in *ex parte* re-examination proceedings as follows '*(a) Claims in an ex parte re-examination proceeding will be examined on the basis of patents or printed publications and, with respect to subject matter added or deleted in the re-examination proceeding, on the basis of the requirements of 35 U.S.C. 112;*⁴⁰⁶ *(b) Claims in an ex parte re-examination proceeding will not be permitted to enlarge the scope of the claims of the patent;* *(c) Issues other than those indicated in paragraphs (a) and (b) of this section will not be resolved in a re-examination proceeding. If such issues are raised by the patent owner or third party requester during a re-examination proceeding, the existence of such issues will be noted by the examiner in the next Office action, in which case the patent owner may consider the advisability of filing a reissue application to have such issues considered and resolved.'*

An *ex parte* re-examination is initiated by filing a 'Request for Re-examination'. The request must identify a 'substantial new question of patentability' affecting any claim of the patent concerned based on patents and publications, it may include patents cited during the prosecution of the patent. It is possible to file an anonymous request, i.e. keeping the requester's identity confidential.⁴⁰⁷

⁴⁰⁴ See Manual of Patent Examining Procedure (MPEP) 2242

http://www.uspto.gov/web/offices/pac/mpep/documents/2200_2242.htm#sect2242 and MPEP 2640 on http://www.uspto.gov/web/offices/pac/mpep/documents/2600_2640.htm#sect2640 (Last visited on 10 June 2010)

⁴⁰⁵ See <http://www.uspto.gov/web/offices/pac/mpep/documents/2200.htm> (Last visited on 13 June 2010)

⁴⁰⁶ Requirements for a US patent specification, see

http://www.uspto.gov/web/offices/pac/mpep/documents/appxl_35_U_S_C_112.htm#usc35s112 (Last visited on 13 June 2010)

⁴⁰⁷ C.F.R. (MPEP) § 1.501 (b) which provides that "(b) If the person making the citation wishes his or her identity to be excluded from the patent file and kept confidential, the citation papers must be submitted without any identification of the person making the submission", see http://www.uspto.gov/web/offices/pac/mpep/documents/appxr_1_501.htm (Last visited on 13 June 2010)

Multiple requests for *ex parte* re-examination can be filed, as long as each request raises a substantial new question of patentability and as long as the second or subsequent request was not filed for purposes of harassment of the patent owner.⁴⁰⁸ It is not unusual for multiple requests to be merged into a single proceeding. Issues not based on patents or printed publications, such as inventorship, inequitable conduct, enablement, written description, and best mode are not considered when making the determination on the request for re-examination. The process is further displayed by the simplified process flow diagram⁴⁰⁹ in Figure 12, below.

Upon filing a request for *ex parte* re-examination, the Director of the USPTO will consider the request to verify that a substantial new question of patentability affecting any claim is raised by the request, and then enter an order granting or denying the request, within ninety days. If granted, the order will identify which claims are subject to re-examination and at least 1 reference supporting the grant of the re-examination.

Upon a grant order for re-examination, within 2 months of service the patent owner optionally may file a 'statement' on such question, including any narrowing claim amendments or new claims for consideration, a cancellation of claims, or a correction of inventorship. If (and only if) the patent owner files such a statement (he is not obliged to respond), within 2 months thereafter the requester may file and have considered a reply to the patent owner's statement. Following this, the requester is no longer able to participate in the re-examination or any appeals therefrom. Following the grant and any responses or replies, the examiner will issue an Office action.

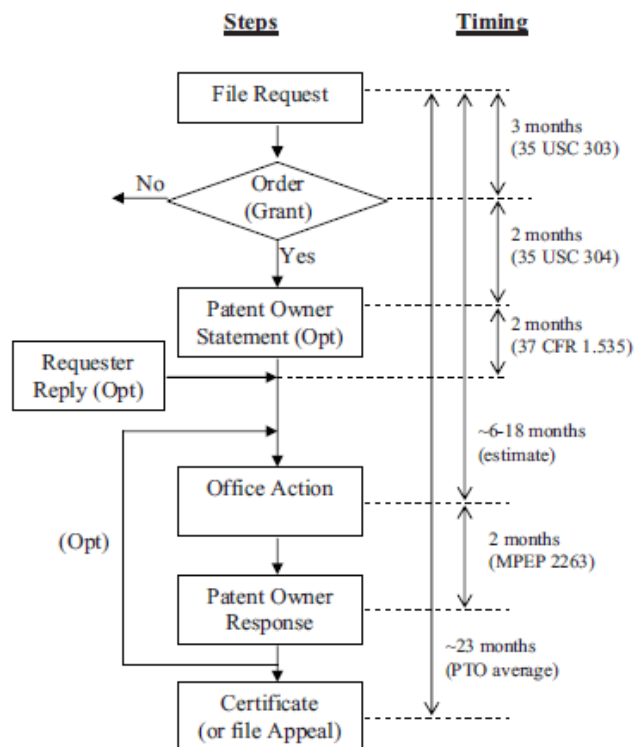
The Rules of Practice governing *inter partes* re-examination are provided in 37 C.F.R. § 1.902-1.997 as well as MPEP Chapter 2600.⁴¹⁰ The main difference of the *inter partes* re-examination when compared to the *ex parte* re-examination, is that allows for participation by the requester throughout the process.

⁴⁰⁸ See, MPEP § 2240

⁴⁰⁹ Paper presented at 6th Annual Rocky Mountain Intellectual Property & Technology Institute, June 5 & 6, 2008, Denver, Colorado, "PATENT REEXAMINATION WITH LITIGATION, STRATEGIES AND PRACTICE TIPS", McCombs, available at http://www.haynesboone.com/files/Publication/ac30a26d-763a-487e-9e82-c39022d143e9/Presentation/PublicationAttachment/38145ba5-88a5-467c-a46e-cbe33005c049/McCombs_Patent%20Reexamination%20with%20Litigation%20-%20Strategies%20and%20Practice%20Tips_06-5-08.pdf (Last visited on 13 June 2010)

⁴¹⁰ See <http://www.uspto.gov/web/offices/pac/mpep/documents/2600.htm> (last visited 13 June 2010)

Figure 12: Ex parte re-examination process



The initiation process is via a request to be filed and it will be granted if the request raises a 'substantial new question of patentability' based on published prior art references. Issues of inventorship, inequitable conduct, enablement, written description, and best mode as a basis for invalidity cannot be raised.

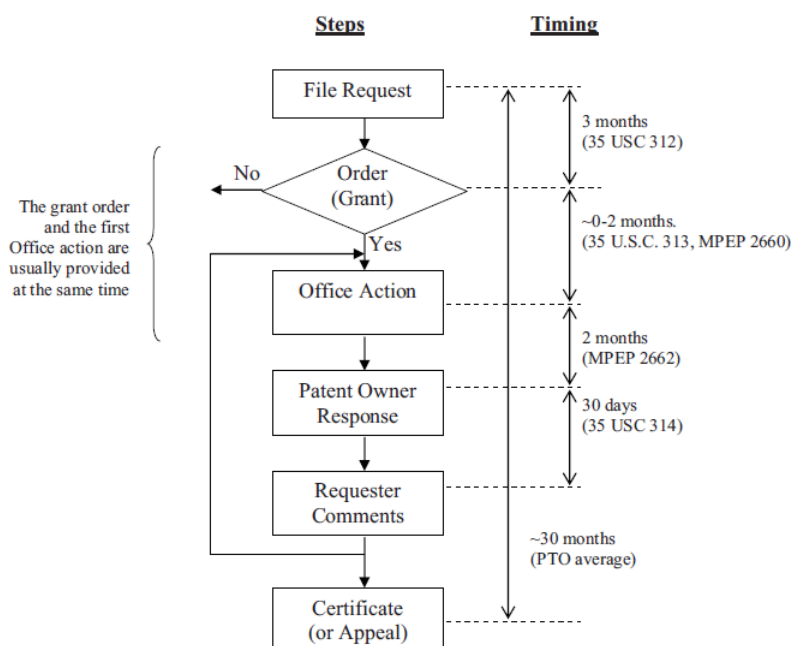
A third-party requester can only file 1 request for *inter partes* re-examination, unless it can be shown that the requester could not have raised the issue at the time of filing the prior request.⁴¹¹ A flow chart describing the steps in an *inter partes* re-examination procedure⁴¹² is provided in Figure 13 below.⁴¹³

⁴¹¹ 37 C.F.R. § 1.907 which provides that once an order to re-examine has been issued, neither the third party requester, nor its privies, may file a subsequent request for inter partes re-examination of the patent until an inter partes re-examination certificate is issued, unless authorized by the Director.

⁴¹² MPEP § 2601 provides detailed flow charts of the three phases of the process and can be viewed at http://www.uspto.gov/web/offices/pac/mpep/documents/2600_2601_01.htm#sect2601.01 (Last visited on 10 June 2010)

⁴¹³ McCombs *supra*

Figure 13: Inter partes re-examination process



After the grant of the request, the requester remains involved with substantive communications between the patent owner and the Patent Office.

Specifically, 35 U.S.C. § 314 states '....In addition, the Office shall send to the third-party requester a copy of any communication sent by the Office to the patent owner concerning the patent subject to the inter partes re-examination proceeding.' The third-party requester has one opportunity to file written comments addressing issues raised by the action of the Office or the patent owner's response thereto, if those written comments are received by the Office within thirty days after the date of service of the patent owner's response.

The third-party requester can comment on the Office action, the patent owner's response, or both. This process repeats itself until the examiner agrees that the claims are patentable or prepares to issue a final rejection of the claims, known as an action closing prosecution in *inter partes* re-examination. At this point, a patentability review conference is held, where 3 experienced primary examiners or other USPTO examiners knowledgeable in the art, review the patentability of the claims at issue and affirm or deny the examiner's decision.

If the examiner agrees that the claims are patentable and the patentability review conference affirms the examiner's decision, the USPTO will issue a certificate of patentability under 35 USC §§ 307 or 316.

Alternatively, if the patentability review conference disagrees with the examiner's decision to affirm the patentability of the claims, the re-examination process may continue.

In contrast, if the patentability review conference disagrees with the examiner's decision to issue a final rejection of the claims, the re-examination process may continue. Meanwhile, if the patentability review conference affirms the examiner's decision to issue a final rejection, the examiner will then be allowed to issue the final rejection. At this point, the patent owner may file a statement in response to the final rejection to be considered by the examiner. If necessary, the patent owner or an *inter partes* requestor may then file an appeal to the USPTO's BPAI, and then to the Federal Circuit (see 35 USC § 306).

The involvement of the third party requester continues through the appeal process, and even includes the ability of the third party requester to participate in appeals initiated by the patent owner and to file appeals to the board of patent appeals and interferences and to the Court of Appeals for the Federal Circuit.⁴¹⁴

c) Evidence

Re-examination does not allow for subpoenas, interrogatories, depositions, or live testimony and cross-examination of witnesses. It is based purely on the submitted documents and arguments.

d) Effect of decision

Upon termination of the re-examination process the USPTO shall issue and publish a certificate. The certificate cancels any claim of the patent finally determined to be unpatentable, confirms any claim of the patent determined to be

⁴¹⁴ See 35 U.S.C. § 315

patentable, and incorporates in the patent any proposed amended or new claim determined to be patentable.⁴¹⁵

Such an amended and/or new claim determined to be patentable and incorporated into a patent following an *inter partes* re-examination proceeding shall have the same effect as for reissued patents on the right of any person who made, purchased, or used within the United States, or imported into the United States, anything patented by such proposed amended or new claim, or who made substantial preparation therefore, prior to issuance of a certificate under Section 311.

e) Stay of infringement litigation

Once an order for *inter partes* re-examination of a patent has been issued, the patent owner may obtain a stay of any pending litigation which involves an issue of patentability of any claims of the patent which are the subject of the *inter partes* re-examination order, unless the court before which such litigation is pending, determines that a stay would not serve the interests of justice.⁴¹⁶

Courts⁴¹⁷ have considered the following factors in deciding whether to grant a stay (*Xerox Corp*, 69 F Supp 2d at 407-408): whether a stay would unduly prejudice or present a clear tactical disadvantage to the party not requesting the stay; whether a stay will simplify the issues in question in the litigation and at trial; and whether discovery is complete and a trial date has been set.

Thus, the closer to the trial that the re-examination request is filed, the less likely that a stay will be granted. If a trial date has been set, the requesting party must generally show a 'clear case of hardship or inequity.

Re-examination can prove to be extremely useful in helping to establish leverage for avoiding costly litigation, i.e. staying litigation discovery proceedings and providing parties with an opportunity to re-evaluate settlement where patent validity is in question.⁴¹⁸

⁴¹⁵ U.S.C. Section 316(a)

⁴¹⁶ U.S.C. Section 318

⁴¹⁷ *Xerox Corp v 3COM Corp*, 69 F Supp 2d 404, 406 (WDNY 1999), appeal dismissed, 243 F 3d 554 (Fed Cir 2000) at pp 407-8, see <http://www.ca9.uscourts.gov/opinions/04-1470.pdf> (Last visited 14 June 2010)

⁴¹⁸ *Supra* IAM – IP Value 2010

f) Costs

The total *ex parte* cost is about \$9,600⁴¹⁹ consisting of filing fees currently at \$2,520⁴²⁰ and attorney fees of \$7,000. Additional government filing fees must be paid for re-examination for more than 3 independent claims or claims in excess of 20.

Total *inter partes* cost is about \$44,000⁴²¹ consisting of filing fees currently at \$8,800⁴²² and attorney fees of \$35,000 through closing of the prosecution. Both costs may have additional claim fees. Hourly rates instead of fixed fees are available at \$250 per hour.

7 Exploitation of IP rights in China, Japan, Europe and USA

The primary objective of intellectual property protection should be commercial exploitation. While the ability to use intellectual property protection offensively can provide support for commercial exploitation, it should not be the primary objective. There are 3 reasons to exploit intellectual property: (1) to increase revenue through exclusivity or competitive advantage (income); (2) to increase recognition of products, services or name in the marketplace (goodwill); and (3) to establish a bargaining position in a business transaction, e.g., raising capital, selling a business interest or resolving an intellectual property dispute (asset).

If exclusivity is a reason for exploiting, then the intellectual property protection selected should protect the competitive feature(s) of a product or service and be cost effective in view of the plans for marketing the product or service. Intellectual property protection does not guarantee the commercial success of a product or service but marketing plans should maximise the benefits of the investment in protection to enhance the likelihood of commercial success. If there is no plan to market a specific feature of a product or service, then it is probably not cost effective to protect that feature.

⁴¹⁹ According to the American Intellectual Property Law Association 2009 Economic Survey for *ex parte* re-examination, the median cost of attorney fees in 2008 was \$10,000.

⁴²⁰ See 37 CFR 1.20 *Post issuance fees*

http://www.uspto.gov/web/offices/pac/mpep/documents/2600_2666_04.htm#sect2666.04 (Last visited on 13 June 2010)

⁴²¹ According to the American Intellectual Property Law Association 2009 Economic Survey for *inter partes* re-examination, the median cost of attorney fees in 2008 through prosecution is \$55,000; through appeal to the Appeal Board is \$80,000; and through appeal to the Federal Circuit is \$188,000

⁴²² See 37 CFR 1.20 *Post issuance fees*

http://www.uspto.gov/web/offices/pac/mpep/documents/2600_2666_04.htm#sect2666.04 (Last visited on 13 June 2010)

With this background in mind, 2 components of exploitation of intellectual property rights will be discussed in this section, i.e. compulsory licensing and technology transfer (assignment and/or licensing).

Compulsory licensing is where a government or other jurisdictional body forces the holder of a patent, copyright, or other exclusive right to grant use of it to the state or others. Usually, the holder does receive royalties, either set by law or determined through some form of arbitration.

Technology Transfer is the transmission or assignment of intellectual property rights, either with or without the concurrent transfer of goods and services.

Licensing is a process that involves the delivery of technology, know-how, patents and other forms of IPRs from its owner, the licensor, to a user, the licensee. The licensor provides the licensee with agreed upon rights to exploit the specific IPRs for which the licensee pays the licensor a royalty.

In many industries technology-based intellectual assets are a major contributor to sustainable revenues and profits. Technology licensing is a means of exploiting such assets to maximise the potential value inherent to them. Technology licensing should have its own strategy, consistent and supportive of overall strategic business objectives. Businesses often don't have an appreciation of how to incorporate a licensing strategy into their business plan.

Licensors need to know that their technology assets are being properly applied and adequately protected. Furthermore, it is important for the licensor to investigate not only the prospective licensee but the licensee's country as well. The government of the host country often must approve the licensing agreement before it becomes effective. Some governments prohibit royalty payments that exceed a certain rate or contractual provisions barring the licensee from exporting products manufactured, using the licensed technology to third countries.

The prospective licensor must always take into account the host country's foreign patent, trade mark, and copyright laws and their enforcement; exchange controls; product liability laws; possible countertrading or barter requirements; antitrust and tax laws; and Government attitudes toward repatriation of royalties and dividends. For the scope of this chapter the most important aspects of the host countries will be discussed.

7.1 China

7.1.1 Compulsory licenses

Despite the legislation and regulations governing the grant of compulsory licenses in China, to date no compulsory license has been granted in China.⁴²³

In order to increase investor confidence in the Chinese patent system and the system's compliance level with the TRIPs Agreement, the provisions on compulsory licences were introduced in 1985 and further amended in 2000 to afford patentees more protection.⁴²⁴

Member nations of the World Trade Organization have agreed that if they implement laws concerning compulsory licenses, such laws will be consistent with Article 31 of the TRIPS Agreement.⁴²⁵ Article 31 provides that if a member nation's laws allow for the use of a patent without the authorisation of the patent holder, including use by the government or third parties authorised by the government, the provisions governing such a compulsory license should include that: (i) prior to the grant of a compulsory license, the proposed user made efforts to obtain authorisation from the patent holder on 'reasonable commercial terms and conditions' and that such efforts were not successful within a 'reasonable period of time; (ii) if a national emergency arises, the requirement to make an effort to license the patent prior to obtaining a compulsory license may be waived; (iii) any compulsory license is not exclusive; (iv) a compulsory license is not assignable;

(v) authorisation of use will be limited to predominantly supplying the domestic market; and (vi) a patent holder will be paid 'adequate remuneration.'

The Revised Law shows compliance⁴²⁶ with these requirements, in that the Law permits a qualified entity or individual to request SIPO to grant a compulsory licence for exploiting a patent if⁴²⁷ (i) the patentee, without justified reason, fails to sufficiently exploit the patent for 3 years from the grant or for 4 years from the filing;

⁴²³ Presentation by Wood et al on Compulsory licensing on Patents in the US, China, Germany and India to be found at <http://www.ipo.org/AM/CM/ContentDisplay.cfm?ContentFileID=6521&FusePreview=Yes> (Last visited on 10 June 2010); confirmed by opinion to Sasol from Freshfields Bruckhaus Deringer dated 3 August 2006 on Chinese Substantive Law; See also China Law & Practise, March 2010 Issue, "Reshaping the patents game" <http://www.chinalawandpractice.com/Article/2443556/Channel/9937/Reshaping-the-patents-game.html> (Last visited 10 June 2010)

⁴²⁴ China Compulsory licenses - IP Management May 2001, Article by Elizabet Chien-Ha, to be viewed at <http://www.managingip.com/Article/1256481/China-overhauls-compulsory-licensing.html> (Last visited on 5 June 2010)

⁴²⁵ IP Law 360, "Trends in Compulsory Licenses in Greater China, 16 August 2006, by Lim, Lilly to be viewed on Finnegan Law firm website at <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=e2a76b33-f4d4-4d88-b41a-a6f5af6e588f> (Last visited on 5 June 2010)

⁴²⁶ PART SIX: COMPULSORY LICENCES FOR THE EXPLOITATION OF PATENTS of the PRC Revised Patent Law

⁴²⁷ Article 48

or (ii) the court or government determines that the patentee has abused the patent right in a monopolistic manner and the compulsory licence is granted to alleviate such anti-competitive misuse of patent. Article 73 of the Implementing Rules defines 'fails to sufficiently exploit the patent' as 'the manner or scale that the patentee as well as the licensee exploit the patent fails to meet domestic demands for the patented product or process'. However, the Revised Law and Implementing Rules leave a large grey area as to what constitutes a 'justified reason'.⁴²⁸ According to an unofficial explanation⁴²⁹ from SIPO, the time period of conducting tests by pharmaceutical companies in preparation for government approval may be considered justified.

Article 49 (unchanged in the Revised Law) authorises SIPO to grant compulsory licence in the event of national emergency or where it is in the public interest. Article 50 (new provision) provides an additional ground for granting compulsory licence, which is similar to the provisions in the TRIPs, i.e. that for the purpose of public health, SIPO may grant a compulsory licence to "patented pharmaceuticals" to be made in China and exported to nations or regions prescribed in international treaties of which China is a signatory or member. The term 'patented pharmaceuticals' may be broadly construed to include drugs and certain medical devices. Under Article 73 of the Implementing Rules, 'patented pharmaceuticals' include not only patented products or products directly obtained from patented processes in the medical and pharmaceutical field required to solve the public health issues, but also patented active ingredients needed for manufacturing the products and patented diagnostic articles needed for using the products.

The granting of the compulsory license is subject to the payment by the compulsory licensee of a reasonable fee⁴³⁰ to the patentee, which shall be agreed by both parties in consultation with one another. If the parties are unable to agree on an amount that is reasonable, the Patent Administration Department under the State Council shall decide.

The duration and scope of patent exploitation shall be explicitly defined in granting a compulsory licence, based on the grounds of justification given in the application for such a licence.

⁴²⁸ *Supra* Ling Ho

⁴²⁹ China Law & Practise, March 2010 Issue, *Supra*

⁴³⁰ Article 57

Furthermore, in granting a compulsory licence the State Council administrative department responsible for patents shall limit the implementation of the compulsory licence mainly to the needs of the domestic market.⁴³¹ If, however, the grounds on which the compulsory licence was granted cease to exist and are unlikely to recur, the compulsory licence may be terminated upon review at the request of the patentee.

7.1.2 Technology transfer

IP licensing and technology transfer in China are subject to complex legislation and fraught with traps for the unwary.⁴³² Approaching technology agreements in China with the boilerplate language common in foreign legal documents is likely to breed problems down the road.

Under the current PRC legal framework, ‘technology transfer’ is a very broad concept, covering both assignments that involve the transfer of intellectual property and licensing that does not involve the transfer of intellectual property. It includes the assignment of patent rights, patent licensing, and transfer of know-how or other technology. A considerable number of technology transfers are accomplished in separate transactions (e.g. a business transaction to buy and sell technology with the direct payment of a transfer fee or a capital contribution in the form of a technology transfer), or as part of another transaction (e.g. a technology transfer involved in the sale of goods or in an original equipment manufacturer contract).

7.1.2.1 Legal and regulatory framework

IP licensing and other technology transfer agreements in China are governed by a plethora of Chinese laws. Any foreign company wishing to engage in technology transfer in or out of China, must consider a series of laws and regulations such as the Contract Law of China (Contract Law⁴³³), which sets out the basic principles applicable to technology-related contracts;

⁴³¹ Article 53

⁴³² IP Management Magazine, SUPPLEMENT - CHINA IP FOCUS 2008 6TH EDITION “Traps for the unwary”, 01 Apr 2008 to be found at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1915323&issueID=> (Last visited on 13 June 2010)

⁴³³ Article 329 of the Contract Law states that any technology contract that illegally monopolizes technology, impedes technological progress or infringes upon the technological results of others is null and void – see the English text on China IP Law, “Judicial Protection of IPR in China, Chapter 18 Contracts for Technology, Section 1 General rules, <http://www.chinaiprlaw.com/english/laws/laws2-18.htm> (Last visited on 15 June 2010)

the Administration of Import and Export of Technologies (Technology Transfer Regulations), the Administration of Registration of Technology Import and Export Contracts Measures,⁴³⁴ the Catalogue of Technologies Prohibited or Restricted from Import, Anti-trust Laws⁴³⁵ and related Supreme Court Opinions⁴³⁶ regarding technology contracts.

The principal regulations covering technology transfer are the 2002 Regulations on Administration of Technology Imports and Exports promulgated by the State Council. In addition to this the Chinese Supreme Court promulgated a Judicial Interpretation on Litigation Issues Relating to Technology Contract Disputes, which took effect on 1 January 2005.

Failure to comply with mandatory provisions of Chinese Laws for technology transfer agreements can have serious consequences for foreign licensors or licensees. Article 52 of the Contract Law provides that any contract that violates mandatory PRC laws or regulations is void. Therefore, any cross-border technology import contract that includes any of the prohibited restrictions under the Administrative Measures or any technology transfer contract (whether domestic or cross-border) that incorporates any of the unreasonable restrictions under the Contract Law (as interpreted by the Supreme Court Opinion) will be void. A literal reading of Article 52 leads to the harsh conclusion that the whole of the contract will be held void if the court finds any provision of the contract to constitute an unreasonable restraint. However, there is Supreme Court Opinion⁴³⁷ that has rendered partial valid contracts as valid.

If the foreign party is at fault for failure to do so, the foreign party could be liable to pay damages to the Chinese party without receiving any of the benefits of the contract.

⁴³⁴ This prescribes certain restrictions when a foreign technology transferor is exporting technology to a PRC party. Cross-border transactions subject to the Technology Provisions include patent assignments, assignments of a right to apply for a patent, patent licensing, assignments of know-how, the provision of technology services and other technology transfers.

⁴³⁵ China promulgated its Antitrust Law on 30 August 2007, which became effective on 1 August 2008

⁴³⁶ The Supreme Court's Opinion on Application of Law in the Adjudication of Technology Contract Disputes (the Supreme Court Opinion) is widely recognized as a milestone in the regulation of technology transfer, particularly with respect to technology monopolies misused by multinational companies in the course of their cooperation with Chinese businesses see Managing Intellectual Property Magazine, SUPPLEMENT China 2006, "Technology transfer tips", Carnabuci et al to be viewed at <http://www.managingip.com/article/622195/Technology-transfer-tips.html> (Last visited on 15 June 2010)

⁴³⁷ Carnabuci *supra*

a) Technology classification

Under the Technology Transfer Regulations, technology is divided into three categories:⁴³⁸ freely transferable, restricted and prohibited technology. The category under which a particular technology falls, depends on whether it is for import or export; therefore a technology that might be prohibited from import might at the same time be free for export.

- Prohibited technologies:⁴³⁹ technologies that cannot be imported into or exported out of China.
- Restricted technologies: technologies that must be approved by the relevant governmental authority before import or export, and the relevant technology transfer agreement must be submitted to the relevant governmental authority. Rerestricted technologies require approval from the Ministry of Commerce (MOFCOM) and the Ministry of Science and Technology before the technology transfer contract is enforceable.⁴⁴⁰
- Permitted or freely transferable technologies: technologies that can be imported into or exported out of China without prior governmental approval, but the parties need to register the technology transfer agreement with the relevant governmental authority. Freely transferable technology transfer contracts require registration (rather than approval) with MOFCOM (or its local branch) but are still effective upon proper execution.

China periodically updates the Technology Import Catalogue (technology which import China Restricts or Prohibits) and the Technology Export Catalogue (technology whose export China Restricts or Prohibits). These catalogues list the technologies classified as prohibited or restricted technologies for import or export purposes, respectively. Technologies not expressly listed on either catalogue are considered as permitted.

Table 5 provides a brief overview of typical clauses that fall within these categories.

⁴³⁸ EPO conference -Growing Business with IP Conference, Milan, Italy, July 2008, Session 4, "Technology Transfer and IP Licensing in China", <http://www.youmark.it/files/applications/2008/07/5228.pdf> (Last visited on 15 June 2010)

⁴³⁹ MOFCOM (Ministry of Commerce) defines the circumstances under which the import or export of technology is prohibited or restricted

⁴⁴⁰ Licensing Journal, 1 May 2006, "Developments in Asia.(technology-transfer agreement)(China)", Hill, see <http://www.accessmylibrary.com/article-1G1-146891284/developments-asia-technology-transfer.html> (Last visited on 15 June 2009); also see China Law & Practise, November 2008 Issue, "China's Technology Transfer Rules: A Stop Along the Path to High-New-Tech Enterprise Status", Lin, see <http://www.chinalawandpractice.com/Article.aspx?ArticleID=2043196&Type=Channel&RuleUsed=PageArticle> (Last visited on 15 June 2010)

Table 5: An overview of contractual clauses concerning technology import and export regulations⁴⁴¹

Prohibited Clauses	Restricted clauses (Subject to “reasonable man test”)	Permitted clauses	Mandatory clauses
Restrictions on the licensee improving the technology or using the improvements	Restrictions on export channels, sales volumes, type or price of license products	Payment terms can be lump sum, or running royalties	Supplier guarantees <ul style="list-style-type: none"> • Lawful owner or right to license technology • Technology is complete and error-free, effective and able to achieve the technology objectives
Restrictions on the licensee acquiring similar or competing technology from other sources	Restrictions on supplier sources (raw materials, parts or equipment)	Confidentiality clause – scope and period to be agreed by the parties	Limitation on liabilities
Other conditions which are not ‘absolutely necessary’ (e.g. mandatory ‘add-on’ service or equipment purchases)		No restriction on maximum term	Cannot exclude liability for deliberate misconduct or gross negligence
		Technical services support to be provided	Standard exemption clauses subject to certain restrictions.

b) Registration of contract

The Contract Law of China in Section 3 Contracts for Technology Transfer, requires that all contracts shall be in written form and sets out the requirements for the different types of technology transfer contracts that may be concluded.

According to the Rules ⁴⁴²of MOFCOM, all cross-border technology transactions, even for the permitted technologies, must be registered with MOFCOM.

Under the New Rules, most technology transfer and technology license contracts, including patent transfer contracts, patent application rights transfer contracts, patent implementation license contracts, trade secrets license contracts, technology service contracts and other contracts with technology trade provisions, with respect to freely tradable technology, continue to be subject to a registration requirement.

⁴⁴¹ EPO conference -Growing Business with IP Conference, Milan, Italy, July 2008, Session 4, “Technology Transfer and IP Licensing in China”, by Ting Zhang (see programme on <http://www.youmark.it/files/applications/2008/07/5228.pdf>) (Author personally attended the conference) (Last visited on 15 June 2010) ((Ting Zhang has 18 years experience of international trade and investment in China)

⁴⁴² China’s Ministry of Commerce (MOFCOM) issued new administrative rules on the registration of technology import and export contracts, the Measures on the Administration of the Registration of Technology Import and Export Contracts (the New Rules), on February 1, 2009. The New Rules replace the Administrative Rules on the Registration of Technology Import and Export Contracts (the Administrative Rules), promulgated by MOFCOM’s predecessor, the Ministry of Foreign Trade and Economic Cooperation, on January 1, 2002, and will be effective March 3, 2009. See, WilmerHale law firm website (who advises clients on their technology transfer or license transactions in China), 20 Feb 2009, “NEW RULES ON THE REGISTRATION OF TECHNOLOGY IMPORT AND EXPORT CONTRACTS”, ROSS ET AL ON <http://www.wilmerhale.com/publications/whPubsDetail.aspx?publication=8797> (Last visited on 15 June 2010)

Contracts not covered by the New Rules include contracts with respect to restricted technologies under the Catalogue of Technologies Prohibited or Restricted to be Imported issued by MOFCOM on 23 October 2007, which are subject to MOFCOM's prior approval; trade mark license contracts, which are subject to registration in the Trade mark Bureau of the State Administration for Industry & Commerce; and technology license or transfer contracts in which the technology is a capital contribution, submitted as attachments to wholly foreign-owned enterprise and joint venture establishment applications, which are subject to foreign investment approval by MOFCOM or its local branch.

7.1.2.2 Technology transfer provisions with research institutes

As a result of differences in their economic structures, policies and laws regarding intellectual property and patent rights, each country has adopted different policies and models for university technology transfer. Universities in the United States are encouraged by the Bayh-Dole Act⁴⁴³ to set up technology licensing offices (TLOs) to carry out technology transfer; whereas in China, universities are more interested in setting up start-up companies to transfer their technology.

It does however appear as if China has paved the way for the introduction of a Bayh-Dole style regime in their academic institutions. Since 1996 the following laws and regulations have been implemented/promulgated:⁴⁴⁴

a) Act For Promotion of Technology Transfer (1996)

The Act provides that unless otherwise stipulated in the contract, the university or research institute is entitled to all IP rights pertaining to inventions funded by the government.

⁴⁴³ The Bayh-Dole Act or University and Small Business Patent Procedures Act is USA legislation dealing with intellectual property arising from federal government-funded research. It was adopted in 1980, Bayh-Dole is codified in 35 U.S.C. § 200-212 and implemented by 37 C.F.R. 401 – see http://www.access.gpo.gov/nara/cfr/waisidx_02/37cfr401_02.html (Last visited on 15 June 2010).

⁴⁴⁴ See Intellectual Property Asset Magazine, Blog, 18 Jan 2008, "Applications and grants on the rise in China; Bayh Dole equivalent approved" on <http://www.iam-magazine.com/blog/Detail.aspx?g=7fe57111-0dc1-42a2-ae39-c4be9f0977f2> (Last visited on 15 June 2010); and RSC website, 4 January 2008, "China allows academics to own patents", Jia available at <http://www.rsc.org/chemistryworld/News/2008/January/04010802.asp>; and The Embassy of the PRC website, 3 August 2004, "Science and Technology Policy in China <http://gr.china-embassy.org/eng/kxjs/zgkj/t146164.htm> (Last visited on 15 June 2010)

b) The Fundamental Science and Technology Act of 1999 and as amended in 2003 and 2006⁴⁴⁵

Article 6 provides that projects in scientific and technological research and development to be subsidised, commissioned, or funded by the government shall be selected through a process of evaluation or review and the results thereof shall be justified with reasons. The intellectual property rights and results derived from such a project may be conferred, in whole or in part, to the executing research and development units for ownership or licensing for use. The Government Scientific and Technological Research and Development Results Ownership and Utilization Regulations implemented in accordance with Article 6(2) and promulgated in 2006. The university or institute is entitled to IP made under government funding. The university or institute can use the results or IP by itself or can assign or exclusively license them to a third party.

c) The Revised Science and Technology Progress Law of 29 December 2007

The standing committee of the National People's Congress amended China's science and technology laws to allow scientists, institutions and universities to own the patents that are created by publicly-funded research.

The impact of the legislation on local patent office filings can clearly be seen in the statistics. Between 1995 and 2007, filings in China grew by 23.9% a year (average annual growth rate), which is far above the growth rate of filings at the European Patent Office (EPO) and in the US.⁴⁴⁶

⁴⁴⁵ Laws and Regulation Database of China (English Translation) on <http://law.moj.gov.tw/eng/LawClass/LawAll.aspx?PCode=H0160037> and <http://law.moj.gov.tw/eng/LawClass/LawAll.aspx?PCode=H0160028> (Last visited on 15 June 2010)

⁴⁴⁶ See WIPO World Intellectual Property Indicators Report Statistics for 2009 available at http://www.wipo.int/export/sites/www/ipstats/en/statistics/patents/pdf/wipo_pub_941.pdf (Last visited on 15 June 2010)

7.2 Japan

7.2.1 Compulsory licenses

The Japanese Patent Law provides statutory licenses and arbitrary licenses as licenses to be granted under the Japanese Law to those who have not had a license from a patentee.⁴⁴⁷

Article 79⁴⁴⁸ allows for a non-exclusive license based on prior use and stipulates that a person who, without knowledge of the content of an invention claimed in a patent application, made an invention identical to the said invention, or a person who, without knowledge of the content of an invention claimed in a patent application, learned the invention from a person who made an invention identical to the said invention and has been working the invention or preparing for the working of the invention in Japan at the time of the filing of the patent application, shall have a non-exclusive license on the patent right, only to the extent of the invention and the purpose of such business worked or prepared.

Article 80 allows for a non-exclusive license due to the working of the invention prior to the registration of the request for a trial for patent invalidation and Article 35(1) allows for an employer's license on an employee's invention. The Patent Law also provide for arbitrary licenses⁴⁴⁹ which are compulsorily granted under an arbitration procedure.

Arbitrary licenses are the closest form of compulsory licenses as we know it in other jurisdictions and are granted on the basis of:

- Non-working by the patentee
- Exploitation of an improvement invention requiring license of the dominant patent
- Public interest.

Article 83 allows the granting of a non-exclusive license where the invention is not worked sufficiently and continuously for 3 years or longer in Japan.

⁴⁴⁷ Paper presented at the 1st IPO-JIPA ASIAN PRACTICE INTERNATIONAL CONGRESS, Seattle, Washington, September 13-15, 2005, Wood et al "Compulsory licensing on Patents in the US, China, Germany and India" to be found at <http://www.ipo.org/AM/CM/ContentDisplay.cfm?ContentFileID=6521&FusePreview=Yes>; (Last visited on 15 June 2010);

⁴⁴⁸ English Translation of the Japanese Patent Law ("Japanese Patent Law") Art 79 – See <http://www.bepats.co.jp/Home/Eibun2007/PatentBODY.htm> (Last visited on 16 June 2010)

⁴⁴⁹ While "an arbitrary license" can be called "a compulsory license" almost in the same meaning, the former terms are nearer translation of the Law.

A person intending to work the patented invention may request the patentee or the exclusive licensee to hold consultations to discuss granting a non-exclusive license; provided, however, that this shall not apply unless 4 years have lapsed from the filing date of the patent application in which the patented invention was filed.

Article 92 allows the granting of a non-exclusive license to work a dependent patent under license as defined in Article 72.⁴⁵⁰

Finally, Article 93 provides for the granting of a non-exclusive license for public interest. Where the working of a patented invention is particularly necessary for the public interest, a person(s) intending to work the patented invention may request the patentee or the exclusive licensee to hold consultations to discuss granting a non-exclusive license. To date no compulsory licenses have been granted in Japan.^{451,452}

7.2.2 Technology transfer

7.1.2.1 Legal and regulatory framework

Patent licensing is addressed in the Japanese Patent Act. In terms of the Patent Law a patentee can grant an exclusive license in terms of Article 77, or non-exclusive license in terms of Article 78. An exclusive licensee shall have an exclusive right to work the patented invention as a business to the extent permitted by the contract granting the licence, and this licence may only be transferred where the business involving the working of the relevant invention is also transferred, where the consent of the patentee is obtained, or where the transfer occurs as a result of general succession. An exclusive licensee may establish a right of pledge or grant a non-exclusive licence on his exclusive licence to a third party only where the consent of the patentee is obtained.⁴⁵³ A non-exclusive licensee shall have a right to work the patented invention as a business to the extent prescribed by this Act or permitted by the contract granting the license.⁴⁵⁴

⁴⁵⁰ Art 72 defines that a dependent patent shall not be worked without a license - the patentee or exclusive licensee may request the other person under the said Article to hold consultations to discuss granting a non-exclusive license to work the patented invention or a non-exclusive license on the utility model right or the design right.

⁴⁵¹ Wood *supra*; Confirmed by opinion to Sasol from Freshfields Bruckhaus Deringer dated 3 August 2006 on Chinese Substantive Law.

⁴⁵² Facilitation of Use of Patented Inventions, IIP Bulletin 2007, Section V, Page 5

⁴⁵³ Articles 77(2) to 77(4)

⁴⁵⁴ Article 78(2)

The licensing of intellectual property in general is governed by the Japanese Fair Trade Commission's (JFTC) Guidelines for Patent and Know-how licensing Agreements under the Antimonopoly Act of July 1999.⁴⁵⁵

The Guideline⁴⁵⁶ gives a comprehensive view on the method and the scope of applying the Anti -Monopoly Law to patent or know-how license agreements. It illustrates with examples JFTC's views on how it applies the Anti -Monopoly Law to patent and know-how license agreement from the perspective of unreasonable restraint of trade and monopolisation.

Further, from the perspective of unfair trade practices, it explains, for each typical restrictions on licensee appearing in patent and know-how license agreements, whether such restrictions (i) in principle fall within unfair trade practices , (ii) in certain circumstances fall within unfair trade practice or (iii) do not, in principle, fall within unfair trade practices .

A licensing agreement for patents and other types of intellectual property rights will be deemed illegal, as unreasonable restraint, if it imposes restrictions on sales price, manufacturing volume, sales volume, sales outlets, and sales territories of the licensed product and substantially restricts competition. The guidelines describe the JFTC's policy on cross-licensing and multiple licensing (granting of a licence by one right holder to multiple licensees).

Part 4 of the Guidelines define the scope of technology licenses that would be deemed fair trade practise and include allowance of:

- Function specific licensing – limiting the business activities of licences using the licensed technology e.g. manufacture, use, sale or export.
- License period limitations – i.e. license granted for specific period of time.
- Business field limitations - In principle, limiting the business field in which licensees may engage in business activities using the licensed technology, for example the scope of license to the manufacturing of a specific product, will not constitute unfair trade practices.

⁴⁵⁵ IP Management , WEEKLY NEWS - OCTOBER 08, 2007 Japan clarifies IP use in antimonopoly law 08 Oct 2007 to be found at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1450229&issueID=>; A translation of the Guidelines was released on 28 September 2007 by the Japan Fair Trade Commission (JFTC) can be viewed on <http://www.jftc.go.jp/e-page/legislation/ama/patentandknow-how.pdf> (Last visited on 15 June 2010)

⁴⁵⁶ Intellectual Property Rights in Japan, ICT Toolkit, June 2006, to be found at <http://www.ictregulationtoolkit.org/en/Publication.1481.html> (Last visited on 15 June 2010)

- Restrictions on manufacturing (territory and volume) in itself not unfair trade practise, but if it has the effect that the products so supplied is insufficient to meet market demand, or limit licensee to obtain alternative license sources, it is considered unfair trade practise.
- Restrictions relating to export in itself is not unfair trade practise.
- Limitation on granting of sub-licenses in itself is not unfair trade practise.

Under the Guideline, while resale price maintenance, continuing royalty payment after expiration of patent and assign back and grant back exclusive license of improvement are, among other restrictions, generally considered illegal per se, rule of reason applies to many of the restrictions including tying, grant back non-exclusive license of improvement, restrictions of material suppliers and customers.

b) Registration requirements

Amendments were made to the Patent Law in 2008 and provisions were included⁴⁵⁷ to recognise provisional exclusive licenses and provisional non-exclusive licenses during the patent application phase.

A registration system for such licences was also created. These provisions allow a patentee to license intellectual property even before the issuance of a patent. Where a licensee registers a provisional exclusive or nonexclusive licence, the licensee can protect its rights to the provisionally licensed technology against a third party even before the issuance of a patent. This means a patentee now has the ability to license patent rights during the application stage. Article 27(1) of the Japanese Patent Act provides that the establishment, maintenance, transfer, modification, lapse or restriction on disposal, of an exclusive or non-exclusive license; and the establishment, transfer, modification, lapse or restriction on disposal, of a right of pledge on a patent right or exclusive or non-exclusive license shall be registered in the patent registry maintained in the Patent Office.

In addition to this, all licensing agreements with foreigners must be notified to the Ministry of Finance of Japan within fifteen days of execution.

⁴⁵⁷ Managing Intellectual Property Magazine, SUPPLEMENT - JAPAN IP FOCUS 2010 6TH EDITION, "Japan's new patent rules", Sugimura, <http://www.managingip.com/Article.aspx?ArticleID=2386718> (Last visited on 15 June 2010)

Any exclusive licences that last for more than 1 year and involve a license that has more than 10 per cent market share of the relevant market is ranked third or higher in the relevant industry must be notified to the Japan Fair Trade Commission.⁴⁵⁸

7.1.2.2 Technology transfer provisions with research institutes

In 1998, the Law for Promoting University-Industry Technology Transfer was passed in Japan. The law made possible the establishment of officially certified Technology Licensing Offices (TLOs). In 1999, the Industrial Revitalization Law was passed, incorporating Article 30, known as the Japanese Bayh-Dole Act,⁴⁵⁹ partly modelled after the Bayh-Dole Act in the US and aiming to encourage research activities and promote the utilization of inventions arising from the research or development supported by the Japanese government. Japanese patent applications have increased since the enactment of the law.⁴⁶⁰ This trend even further increased in 2004 when Japan promulgated the National University Incorporation Law. The purpose of the National University Incorporation Law (Law 122, 2003) is to allow the universities to respond to the requests of the people of Japan and to elevate the level and development of research and tuition through the establishment of management and the organisation at the universities. This enabled universities to have full control over ownership and royalties that came from licensing.⁴⁶¹

7.3 Europe

7.3.1 Compulsory licensing

Although there are some uniform regulations with regards to EU compulsory licenses where the EU considers the importance of granting these licenses in the interest of the community as a whole, such as compulsory licensing of patents relating to the manufacture of pharmaceutical products for export to countries with public health problems,⁴⁶² compulsory licensing is a national matter.

As such the best manner to illustrate compulsory licensing and applicability in the EU is by means of comparison.

⁴⁵⁸ The Licensing Journal, February 2007 Issue "International Considerations in IP Licensing", p28

⁴⁵⁹ Japan Science and Technology Centre – "Putting the results of research from universities, national and other public research institutes, etc. into concrete form" to be found at <http://www.jst.go.jp/EN/menu2/04.html>.

⁴⁶⁰ International Journal of Intellectual Property Law, Economy and Management 1 (2005), pp 27-36, "Technology Licensing and University Research in Japan", Takenaka, to be viewed at <http://www.ipaj.org/archive/pdfs/Technology%20Licensing%20and%20University%20Research%20in%20Japan.pdf> (Last visited on 15 June 2010)

⁴⁶¹ Journal of Industry and Higher Education, June 2007, "Japan's new technology transfer system and the pre-emption of university discoveries by sponsored research and co-inventorship, Kneller to be viewed at http://www.kneller.jp/pdf/Preemption_by_Sponsored_Research_in_Japanese_Universities.pdf (Last visited on 15 June 2010)

⁴⁶² See Regulation 816/2006 as adopted by the EC on 17 May 2006

As there is no central EU law on enforcement of patent rights, one has to review the provisions in the Patent Acts of the various EU member states. Table 6 defines an overview of the provisions and the main criteria of a selection of the Patent Laws for Austria, Germany, France and UK.

Table 6: Compulsory (Patent) Licensing in the EU (Selection of overview of Patent Law for Austria, Germany, France and UK)

Country	Compulsory licenses	Compulsory licenses due to dependency	Compulsory licenses due to non-working	Compulsory licenses due to public interest
Austria ⁴⁶³	Yes ⁴⁶⁴	<p><i>Art.36(1)</i> - a prerequisite for such a license is dependency, i.e. if the commercial use of an invention is unconditionally connected with infringement of the older.</p> <p>A compulsory license due to dependency is only possible, if the invention of the later patent constitutes ‘an important technical advance of substantial economic significance relative to the invention protected by the earlier patent’.</p>	<p><i>Art.36(2)</i> - working by importation is to be considered as working of the Invention; applicant has to have a business which allows him to work the invention both, technically and economically</p> <p>Examples of working to a non-adequate extent have been regarded: advertisements looking for purchasers or licensees for the patent; solely isolated selling or licensing offers in magazines; isolated and schematic notices about the grant of licenses; the mere willingness of the patentee to consider appropriate license offers through the initiative of third persons without acting positively on his own; the isolated production of single components of a protected invention without a definite, purposeful plan and with long intermediates between - the single activity for production of a patented subject matter; a continuing production has to be</p>	<p><i>Art.36(3)</i> - Under ‘public interest’ all interests of legal, economic and social life are to be understood, especially such of public health (the difference between ‘general interest (Allgemeininteresse; Art.36(1) and (2)) and public interest (öffentliches Interesse; Art.36(3)): general interest may even be present in single branches of economy, whereas a public interest has to be more than that).</p>

⁴⁶³ Compulsory Licenses in Austria, by Dr. Daniel Alge, March 2000, Sonn & Partner to be found at http://www.sonn.at/e/publikationen/compulsory_licenses.pdf (Last visited on 27 May 2010)

⁴⁶⁴ Article 36 of Austrian patent law – to be found at <http://www.cptech.org/ip/health/cl/austria1.html> (Last visited on 27 May 2010)

			<p>intended and all the preparations for such a continuing production have to be performed by the patentee; production of only a limited amount of devices for the patentees own customers thereby preventing the use of the invention for other undertakings</p> <p>Potential excuses for non-working (or only limited working) are: change of the patentee; insurmountable obstacles i.e. obstacles which are not removable by serious assistance; financial losses being higher than the typical losses at the, i.e. financially insurmountable obstacles and continuing losses.</p> <p>The patentee holds the burden of proving the working to an adequate extent.</p>	
Germany	Yes, but in practise, the grant of compulsory licenses is extremely rare	A party that cannot exploit an own dependent patent without infringing the patent proprietor's patent having an earlier time rank can seek a non-exclusive license under the criteria of § 24(1) provides that the own invention of the party seeking the permission comprises an important technical progress of enormous commercial importance. In such a case the patent proprietor can demand cross-licensing of the younger patent under appropriate	Compulsory licences under the criteria of § 24(1) can be granted in order to assure a satisfactory supply of the inland market with the patented product if the patent proprietor does not exploit or predominately exploit his patented invention on the domestic market. However, imports are considered to be equal to the exploitation of the patent on the domestic market (§ 24(4)).	§ 24(1) provides that a non-exclusive permission to commercial use of an invention shall be granted by the Federal Patent Court to a party unsuccessfully seeking during an appropriate period of time the patent proprietor's consent to use the invention under commensurate conditions common in trade, if such a permission is required in the public interest. According to § 13, the patent shall not take effect as far as the German Federal Government orders that the invention is to be used in the interest of public welfare or shall also not extend to any use of the patented invention

		conditions (§ 24(2)).		subject to an order issued in the interest of the security of the Federal Republic of Germany by the competent Supreme Federal Authority or by a subordinate agency commissioned by the latter. In the case of an order to use the patent in the interest of public welfare or security the patentee has a claim against the Federal Republic of Germany for a commensurate compensation.
France ⁴⁶⁵	Yes	<i>Art. L. 613-15.</i> The owner of a patent concerning an improvement on an invention already patented on behalf of another person may not work his invention without the consent of the owner of the earlier patent; the latter owner may not work the patented improvement without the consent of the owner of the patent of improvement. After hearing the Public Prosecutor, and in the public the First Instance Court may grant to the owner of the patent of improvement, at his request which may not be made before expiry of the period specified in Article L. 613-11, a license to the extent necessary for working the invention to which that patent relates, in so far as the invention to which the	<i>Art. L. 613-11(a)</i> (a) has begun to work or has made real and effective preparations for working the invention that is the subject matter of the patent on the territory of a Member State of the European Community or another State party to the Agreement on the European Economic Area; The same shall apply where working, as mentioned under (a) above, or marketing, as mentioned under (b) above, in France has been discontinued for more than 3 years.	Art L 613-11(b) has marketed the product that is the subject matter of the patent in a quantity sufficient to satisfy the needs of the French market.

⁴⁶⁵ Chapter III of French Patents Act (English Translation) "RIGHTS DERIVING FROM PATENTS " to be found here <http://www.cptech.org/ip/health/cl/france1.html> (Last visited on 10 June 2010)

		improvement patent relates represents substantial technical progress and economic interest in relation to the prior patent. The license granted to the owner of the patent of improvement may only be transferred together with the said patent. On a request submitted to the Court, the owner of the earlier patent shall be granted a license under the patent of improvement.		
UK ⁴⁶⁶	Yes ⁴⁶⁷	s.48A(1)(b)(i) - WTO proprietor, refusal to license patented invention on reasonable terms, so exploitation of another invention hindered s.48B(1)(d)(ii) - non-WTO proprietor, proprietor has refused to grant a licence on reasonable terms, so working of another patent in UK hindered.	s.48B(1)(a) - non-WTO proprietor, invention not being worked in UK, and UK demand not met by importation from an EEA member state s.48B(1)(b)(ii) - non-WTO proprietor, invention is a product, UK demand not met by importation from an EEA member state s.48B(1)(c) - non-WTO proprietor, invention capable of being worked in UK, but it is hindered from being so worked by importation from a non-EEA state s.48B(1)(d)(i) - non-WTO proprietor, proprietor has refused to grant a licence on reasonable terms, so market for export from UK not met	s.48A(1)(a) - WTO proprietor, invention is a product, UK demand not met on reasonable terms s.48A(1)(b)(ii) - WTO proprietor, refusal to licence patented invention on reasonable terms, causing unfair prejudice to industrial activities s.48A(1)(c) - WTO proprietor, proprietor imposing conditions on licences, causing unfair prejudice to industrial activities s.48B(1)(b)(ii) - non-WTO proprietor, invention is a product, UK demand not met on reasonable terms s.48B(1)(d)(iii) - non-WTO proprietor, proprietor has refused to grant a licence on reasonable terms, causing unfair prejudice to industrial activities s.48B(1)(e) - non-WTO proprietor, proprietor imposing conditions on licences, causing unfair prejudice to industrial activities

⁴⁶⁶ <http://www.ipo.gov.uk/patent/p-decisionmaking/p-law/p-law-manual/p-law-manual-practice/p-law-manual-practice-patent1977.htm> (Last visited on 10 June 2010)

⁴⁶⁷ Section 48(1) At any time after the expiration of three years upon meeting certain conditions

7.3.2 Technology transfer

7.3.2.1 Legal and regulatory framework

In compliance with Art. 66.2 of the TRIPs⁴⁶⁸ the EU has various programmes to facilitate technology transfer in specific areas of technology to least developed countries.

The EU furthermore has six specific objectives for technology transfer, which applies to all types of technology.⁴⁶⁹

These objectives are:

- promoting direct investment, licensing, franchising and sub-contracting
- improving access to available techniques and processes
- supporting joint research projects
- providing training in technology management and production methods
- capacity building to improve countries' ability to use new technologies,
- encouraging trade in technological goods.

The EU has strict antitrust laws that affect technology licensing and has issued detailed regulations known as a block exemption, governing patent and know-how licensing agreements as well as ancillary provisions relating to other intellectual property rights.

These block exemption regulations are entitled 'Commission Regulation (EC) No. 240/96 of 31 January 1997 on the Application of Article 81(3) of the Treaty [of Rome] to certain categories of technology transfer agreements.' These regulations should be carefully considered by anyone currently licensing or contemplating the licensing of technology to the European Union.

Although technology license agreements will usually improve economic efficiency and be pro-competitive as they can reduce duplication of research and development, strengthen the incentive for the initial research and development, spur incremental innovation, facilitate diffusion and generate product market competition, they may also be used for anti-competitive purposes, e.g. where 2 competitors use a licensing agreement to share out markets between themselves or where an important licence holder excludes competing technologies from the market.

⁴⁶⁸ Which states that "developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base?"

⁴⁶⁹ REPORT ON THE IMPLEMENTATION OF ARTICLE 66.2, OF THE TRIPS AGREEMENT, EUROPEAN COMMUNITIES, WTO, 27 April 2010 to be viewed at http://trade.ec.europa.eu/doclib/docs/2010/may/tradoc_146121.pdf (Last visited on 4 June 2010)

As such, technology licensing agreements would risk infringing Article 81(1) of the EC Treaty. On balance, however, the advantages realised by these agreements may outweigh the anti-competitive drawbacks. In such situations, the agreement could qualify for an exemption under Article 81(3) EC, as discussed below.

7.3.2.2 EC Treaty – Article 81

For the purpose of the EC Treaty - technology transfer agreement means a patent licensing agreement, a know-how licensing agreement, a software copyright licensing agreement or a mixed patent, know-how or software copyright licensing agreement - including any such agreement containing provisions which relate to the sale and purchase of products or which relate to the licensing of other intellectual property rights or the assignment of intellectual property rights, provided that those provisions do not constitute the primary object of the agreement and are directly related to the production of the copyright products; assignments of patents, know-how, software copyright or a combination thereof where part of the risk associated with the exploitation of the technology remains with the assignor are deemed to be technology transfer agreements.

In terms of the EU Treaty⁴⁷⁰ Article 81, technology transfer agreements that restrict competition are prohibited.⁴⁷¹ In particular Article 81(1)⁴⁷² of the EC Treaty prohibits agreements, decisions and concerted practices that have as their object or effect the prevention, restriction or distortion of competition within the common market.

a) Exemptions for IP licensing

Article 81(3) of the EC Treaty exempts those agreements, decisions and concerted practices which, even though capable of restricting competition, produce outweighing pro-competitive efficiencies. Pro-competitive efficiencies that attach to IP licensing include the dissemination of technology and the promotion of innovation. The EC Technology Transfer Block Exemption Regulation⁴⁷³ (TTBER) recognises this by providing a safe harbour, known as a block exemption, for certain technology transfer agreements (including patent licences) provided that the parties to the agreement do not exceed the market share thresholds specified in Article 3 of the TTBER and the

⁴⁷⁰ <http://www.interreg3c.net/sixcms/media.php/5/EC+Treaty.6806.pdf> (Last visited on 4 June 2010)

⁴⁷¹ <http://europa.eu/scadplus/leg/en/lvb/l26108.htm> (Last visited on 4 June 2010)

⁴⁷² http://ec.europa.eu/comm/competition/legislation/treaties/ec/art81_en.html (Last visited on 4 June 2010)

⁴⁷³ Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements, OJ No 123, 27.04.2004, p. 11

agreements do not contain any hard core restrictions described in Article 4 of the TTBER.

The block exemption will not apply to certain restrictions and obligations imposed on licensees in technology transfer agreements that are listed in Article 5 of the TTBER, these are:

- Licensee granting exclusive licence on improvements to licensor.
- Licensee assigning improvements to licensor.
- Obligation on licensee not to challenge validity of licensor's IP rights.
- Licensor may terminate licence on licensee's challenge, i.e. will not be anti-competitive.

These excluded restrictions do not prevent TTBER from applying to the rest of the agreement and as such the rest of agreement may be valid, provided that the excluded restriction can be severed from rest of agreement.

By providing this list, the TTBER provides an indication of the restrictions and obligations likely to be anti-competitive under EU antitrust laws.

b) No-challenge clauses

Most relevant for present purposes, Article 5(1)(c) of the TTBER provides that the block exemption does not apply to any direct or indirect obligation on the licensee not to challenge the validity of intellectual property rights which the licensor holds in the common market.

Article 5(1)(c) deals with the most obvious measure for a licensor to take to avoid a challenge from its licensee, which is to contractually prohibit the licensee from doing so (such as a 'no-challenge' clause). The effect of Article 5(1)(c) is that no-challenge clauses are excluded from the benefit of the block exemption, indicating that no-challenge provisions are highly likely to contravene Article 81(1) of the EC Treaty. Whether the clause actually contravenes Article 81(1), will depend on an individual assessment of its positive and negative competition effects. It should be noted that the EC guidelines accompanying the TTBER, state that a no-challenge clause is unlikely to satisfy the conditions for exemption under Article 81(3) of the EC Treaty.

c) Reserving the right to terminate

Article 5(1)(c) of the TTBER expressly provides *‘the exclusion of no-challenge clauses from the benefit of the block exemption is without prejudice to the possibility of providing for termination of the technology transfer agreement in the event that the licensee challenges the validity of one or more of the licensed intellectual property rights’..*

By reserving this termination right, the licensor creates a risk for the licensee of not being able to use the licensed technology if the licensee's challenge is unsuccessful, with the licensee forced into an ‘all or nothing’ approach.

It is noteworthy that the previous block exemption regulations went further and expressly provided that the reservation by the licensor of the right to terminate, generally did not restrict competition.

The EC guidelines to the TTBER confirm that a licensor is not forced to deal with a licensee who challenges the subject matter of a licence. Consequently, a provision giving the licensor a right to terminate in the event of the licensee's challenge, is a common feature of patent licences in the EU. However, issues such as the following still arise: Patent licensors commonly license rights to multiple patents covering multiple technologies. Neither the TTBER nor its guidelines clarify whether the reservation or the exercise of the right to terminate becomes problematic if used to terminate rights to all patents, where the licensee does not challenge the entire licensed patent portfolio. The block exemption under the TTBER applies to certain types of patent licence (for example, patent licences between only 2 parties). Any assurances extrapolated from the TTBER need to be re-evaluated if the patent licence of interest is not one to which the block exemption applies.

When drafting the right to terminate, it needs to be considered whether the right to terminate should be activated on challenge by entities other than the licensee (for example, its sub-licensees or its affiliates).

d) Other provisions

Exclusive grant-back obligations (either through a licence or assignment) in respect of a licensee's own ‘severable’ improvements to (or his own new applications of) the licensed technology (a severable improvement means ‘an improvement that can be exploited without infringing the licensed technology’) and in the case of non-competitors

restrictions on the licensee's ability to exploit his own technology or on the parties' ability to carry out Research and Development are prohibited.

Companies need to be aware of the anti-trust angle when dealing with their IP. They will have to assess whether and how these rules will impact upon their licence agreements.

7.3.2.3 Technology transfer provisions with research institutes

EC State Aid regulations have similar provisions as the US Bayh-Dole Act. It provides in particular, where research is wholly publicly funded, it is usual for the Public Research Organisation (PRO) to own the IPR.

Improvement of cross-border collaboration between PROs and industry has a significant role to play in promoting the long-term competitiveness of the European economy. Such collaboration is essential for the development and transfer of knowledge and technology throughout Europe.

On 3 March 2010 the European Commission has launched the Europe 2020 Strategy to go out of the crisis and prepare EU economy for the next decade under the Lisbon Agenda.⁴⁷⁴ This included guidelines⁴⁷⁵ offering operational guidance to research institutions regarding the management and exploitation of the intellectual property they generate, especially in the context of collaboration with industry. The Lisbon Agenda appointed the European Union Scientific and Technical Research Committee (CREST) to act as an interface to define and oversee the implementation of the open method of co-ordination (OMC) in public funding research ventures to help reach the goal of 3 per cent of GDP for research. The CREST Collaboration Decision Guide is designed to help potential R&D collaborators, such as a business (in particular a SME) and a public research organisation, to decide the best way to arrange matters in their collaboration agreement.⁴⁷⁶

⁴⁷⁴ The Lisbon Strategy, also known as the Lisbon Agenda or Lisbon Process, was an action and development plan for the European Union between 2000 and 2010. Its aim was to make the EU "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion," by 2010.

⁴⁷⁵ The guidelines can be viewed at (http://ec.europa.eu/invest-in-research/pdf/download_en/knowledge_transfe_07.pdf) (Last visited on 16 June 2010)

⁴⁷⁶ See Report of the CREST OMC Expert Group on Intellectual Property (2nd Cycle), 1 Sept 2006, CROSS-BORDER COLLABORATION BETWEEN PUBLICLY FUNDED RESEARCH ORGANISATIONS AND INDUSTRY and TECHNOLOGY TRANSFER TRAINING to be viewed at http://ec.europa.eu/invest-in-research/pdf/download_en/crestreport.pdf (Last visited on 15 June 2010)

7.4 USA

7.4.1 Compulsory licenses

The USA has no compulsory licensing regime *per se*. Compulsory licensing is a rarity in (the US) patent system.⁴⁷⁷ The general rule is that a patent owner may refuse to issue licenses or to make or sell the patented invention.⁴⁷⁸

The United States has viewed the fundamental right bestowed on the patentee by the grant of a patent is the ability, 'to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States'.⁴⁷⁹

In contrast to practices in Europe, the availability of injunctive relief has long been an integral part of US patent law to ensure a patentee's ability to enforce this core right. The Supreme Court had recognised the essential connection between injunctive relief and the right to exclude, stating that the 'heart of a patentee's legal monopoly is the right to invoke the State's power to prevent others from utilising his discovery without his consent'.⁴⁸⁰

The only exception is 28 U.S.C. 1498⁴⁸¹ wherein the US government is allowed to use an invention covered by a patent without a license, generally to procure products and services that it needs without injunction or delay. However, the right to injunctive relief could fundamentally change due to the eBay-case⁴⁸² wherein the issuance of permanent injunctions in essentially all patent cases were revisited by the Supreme Court of the United States, and may have a dramatic effect on patents in all industries. The Supreme Court decided the statute that gave courts the power to issue an injunction, 35 U.S.C. § 283, required the usage of a 4-factor equitable test to decide whether an injunction should be awarded, i.e. (1) irreparable injury; (2) the inadequacy of monetary damages to compensate for that injury; (3) a favourable weighing of hardships between the plaintiff and the defendant; and (4) consistency of an injunction with the public interest. As a result of this case injunctions have been denied by United States district courts in some later cases.⁴⁸³

⁴⁷⁷ Dawson Chemical v. Rohm and Haas, 448 U.S. 176, 215 (1980) (US Supreme Court)

⁴⁷⁸ Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405 (1908) (Supreme Court)

⁴⁷⁹ 35 U.S.C. § 154(a)(1) (2006)

⁴⁸⁰ Zenith Radio Corp. v. Haseltine Research, Inc., 395 U.S. 100, 135 (1969)

⁴⁸¹ See http://www.uspto.gov/web/offices/dcom/olia/conf_gipa2007aug27/agenda/southafrica_2007aug07gipapharm.pdf (Last visited on 15 June 2010)

⁴⁸² eBay Inc. v. MercExchange L.L.C. 126 S. Ct. 1837 (2006) see <http://docs.justia.com/cases/supreme/slip/547/05-130/opinion.pdf> (Last visited on 21 July 2010).

⁴⁸³ See http://en.wikipedia.org/wiki/EBay_Inc._v._MercExchange,_L.L.C. (Last visited on 21 July 2010).

Apart from this unexpected turn in case law, the USA, through the Federal Trade Commission Guidelines for Licensing of Intellectual Property,⁴⁸⁴ addresses the abuse or misuse of patent rights through Anti-Trust law.⁴⁸⁵

7.4.2 Technology transfer

7.4.2.1 Legal and regulatory framework

Technology and IP Transfer is rather complex and addressed by various laws in the US. In general, the Federal Trade Commission Guidelines for Licensing of Intellectual Property⁴⁸⁶ state the antitrust enforcement policy of the US Department of Justice and the Federal Trade Commission with respect to the licensing of intellectual property protected by patent, copyright, and trade secret law, and of know-how on a US national and international level.

In a few instances, international technology licensing agreements can unlawfully restrain trade in violation of US or foreign antitrust laws. As a general rule, US antitrust laws prohibit international technology licensing agreements that unreasonably restrict imports of competing goods or technology into the United States or unreasonably restrain US domestic competition or exports by US persons.⁴⁸⁷

Whether or not a restraint is reasonable is a fact-specific determination that is made after consideration of the availability of:

- Competing goods or technology
- Market shares
- Barriers to entry
- The business justifications for and the duration of contractual restraints
- Valid patents, trade marks, and copyrights.

7.4.2.1 Technology transfer provisions with research institutes

Also of importance is the USA technology transfer from universities to industry to ensure moving research results to the marketplace for commercial exploitation. The Bayh-Dole Act⁴⁸⁸ was passed in 1980.

⁴⁸⁴ <http://www.ftc.gov/bc/0558.pdf> (Last visited on 21 July 2010).

⁴⁸⁵ U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION (2007) to be found at www.usdoj.gov/atr/public/hearings/ip/222655.pdf and www.ftc.gov/reports/index.shtml (Last visited on 15 June 2010)

⁴⁸⁶ U.S. Dep't of Justice & Federal Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property (Apr. 6, 1995), at <http://www.ftc.gov/bc/0558.pdf> (Last visited on 16 June 2010)

⁴⁸⁷ A Basic Guide to exporting technology - Technology Licensing/ Joint Ventures to be found at <http://www.unzco.com/basicguide/c6.html> (Last visited on 15 June 2010)

⁴⁸⁸ PL 96-517, Patent and Trade mark Act Amendments of 1980 to be viewed at http://www.access.gpo.gov/nara/cfr/waisidx_02/37cfr401_02.html (Last visited on 16 June 2010)

This Act was a fundamental change to the US patent law, as it changed the ownership of the results of research funded by US Government.⁴⁸⁹ As a result of this law universities retain ownership to inventions made under federally funded research.

In return, universities are expected to file for patent protection and to ensure commercialisation upon licensing. The royalties from such ventures are shared with the inventors. A portion is provided to the university and department/college, and the remainder is used to support the technology transfer process.

The Bayh-Dole Act is now codified at 35 U.S.C. Sections 200-212. This Act generally allows a contractor who has received research funding from the federal government to elect to retain title to any invention made, pursuant to the contract under which the funds were provided. In return, the federal government is to receive a nonexclusive, non-transferable, irrevocable, paid-up license to any such invention resulting from the performance of the contract. In addition, the government may take title to an invention to which the contractor has chosen not to retain title and pursuant to its 'march-in' rights, may require a contractor who chooses to retain title to grant licences to responsible applicants upon reasonable terms.

While the Bayh-Dole Act is clearly applicable in a situation in which the federal government fully funds a research project, a contractor performing research that is only partially funded by a federal agency may be able to claim title under the Bayh-Dole Act to an invention resulting from that research.⁴⁹⁰ If the contractor chooses not to take title to the invention or fails to do so within the requisite time period, the funding agency may then have the option to take title to the invention.

Although it may be possible for the federal government to take title to an invention developed partially with federal funds, the underlying purpose of the Bayh-Dole Act seems to preclude the government from keeping intellectual property developed in federally funded university research out of the hands of private industry.

⁴⁸⁹ Valuing Intellectual Property in Japan, Britain and the United States, Edited by Ruth Taplin, May 2004: 234x156: 176pp, Hb: 978-0-415-34112-7: "Technology transfer from US Universities: the need to value IP at the point of commercialisation (T Young) pp20

⁴⁹⁰ Sean M. O'Connor, "Intellectual Property Rights and Stem Cell Research: Who Owns the Medical Breakthroughs?", 39 New Eng. L. Rev. 665, 668-69 (2005).

Prior to the passage of the Bayh-Dole Act, industry was often hesitant to use university research facilities or invest in university research that was either itself partially funded by a federal agency or related to other federally funded research, fearing that the university would not have secure patent rights in the resulting inventions to assign or license to industry.⁴⁹¹ Assignment of intellectual property rights to a private sector funding contractor will thus be subject to the provisions of the Bayh-Dole Act.

The Bayh-Dole Act has been seen as particularly successful in meeting its objectives.⁴⁹² However, while the legislation provides a general framework to promote expanded utilisation of the results of federally funded research and development, questions are being raised as to the adequacy of current arrangements. Most agree that closer co-operation among industry, government, and academia can augment funding sources (both in the private and public sectors), increase technology transfer, stimulate more innovation (beyond invention), lead to new products and processes, and expand markets. There is however the opposite view that the collaboration may provide an increased opportunity for conflict of interest, redirection of research, less openness in sharing of scientific discovery, and a greater emphasis on applied rather than basic research.⁴⁹³ It remains to be seen.

8 Comparative compulsory license overview

Despite detailed legislative guidelines, countries have little experience with compulsory licensing outside of the anti-trust area.⁴⁹⁴ Perhaps the availability of compulsory licensing is sufficient to encourage patentees to grant voluntary licences. A country that grants compulsory licenses is likely to find its efforts to partner with companies in the future adversely affected, as it would create a less stable investment climate.

⁴⁹¹ Arti Kaur Rai, *Regulating the Scientific Research: Intellectual Property Rights and the Norms of Science*, 94 Nw. U. L. Rev. 77, 98 (1999).

⁴⁹² Journal of the Association of University Technology Managers™, *Summer 2005 issue, Volume XVII, Number 1, pages 15–31*, “The Bayh-Dole Act at Twenty-Five Years: Looking Back, Taking Stock, Acting for the Future”, *Remington*, to be viewed at www.infodev.org/en/Document.644.pdf (Last visited on 16 June 2010)

⁴⁹³ Published paper, “Changes in University Patent Quality after the Bayh-Dole Act: A Re-Examination” by Sampat et al, School of Public Policy, Georgia Institute of Technology, Atlanta at <http://www.krannert.purdue.edu/centers/ijio/accepted/SMZ.pdf> (Last visited on 16 June 2010)

⁴⁹⁴ Compulsory Licensing On Patents in the US, China, Japan, Germany, and India, Presented by: Jon Wood, Bridgestone Americas, Raj S. Davé, Morrison Foerster to be found at <http://www.ipo.org/AM/CM/ContentDisplay.cfm?ContentFileID=6521&FusePreview=Yes#266> (Last visited on 16 June 2010)

Table 7: Comparative analyses for intellectual property protection in EU, China, Japan and USA criteria for compulsory licenses

Country	Public welfare	Non working	Improvement exploitation
Germany ⁴⁹⁵	Yes	No	No
China	Yes	Yes	Yes
Japan	Yes	Yes	Yes
US	No	No	No

Finally, it is questionable whether a compulsory license would really be useful in the case of high-technological products. Years of additional research results in trade secrets and undisclosed information that the patent does not cover, which may be necessary to produce a productive patented invention

It would appear that among industrialised nations, the United States allows considerably less compulsory patent licensing than other countries. The commonality of such provisions is underscored by their presence in the TRIPs agreement which allows, but does not require, countries to provide for compulsory patent licensing of improvement patents.⁴⁹⁶

In the following chapters a specific overview of intellectual property strategy definition will be given as an introduction to intellectual property business models and how these differ for a business that deals specifically in Eastern countries, as opposed to Western countries only. The role of culture in developing these strategies and models will also be considered.

⁴⁹⁵ Comparative Compulsory license review provided in Table 4 of this chapter.

⁴⁹⁶ Article 8 of TRIPS articulates two common objectives for compulsory licenses – protecting a public interest or stopping anticompetitive behaviour. Compulsory licensing can protect a public interest by either increasing production or access to the patented technology.

CHAPTER III – UNDERSTANDING THE ROLE OF CULTURE IN DOING BUSINESS WITHIN ASIAN COUNTRIES SUCH AS CHINA AND JAPAN

1 Introduction

From centuries of slumber and exclusiveness, China was roused to open its doors to Western trade when it joined the World Trade Organization on 11 December 2001.

This however does not modify the importance of the role culture plays in dealings with China, or other Asian countries such as Japan, and a need for clear comprehension of the differences between the Western and the Eastern Cultures is paramount. Without respecting these differences, the platform for any business undertakings may be disastrous.⁴⁹⁷

Although there are various sources,⁴⁹⁸ the Table⁴⁹⁹ below illustrates the comparative philosophies and illustrates the difficulties westerners have in working within an eastern setting.

Table 8 Comparative analyses of Eastern and Western philosophy

Cultural Values Expressed	West (America & most European countries)	East (The Chinese and Most Asian cultures)
Type of Logic	Linear (More causal relationships and direct associations between A and B)	Spiral (more roundabout and subtle)
Expression of Agreement and Disagreement	More argumentative, willing to express disagreement verbally	More difficult to say no even if one means no, disagreement expressed non-verbally
Communication of Information	More meaning is in the explicit, verbal message. Use of direct language	Meaning is often implied or must be inferred Use of indirect language patterns
Expression of Honesty	More overt, one is more likely to ask the person to 'speak their mind' or 'get it out on the table'	Subtle, nonverbal

⁴⁹⁷ Cultural Intelligence & Modern Management to be found at http://www.1000ventures.com/ebooks/bec_ebooks_cimm.html (Last visited 29 June 2010)

⁴⁹⁸ See for example East versus West, Philosophy, Cultural Values, and Mindset to be found at http://www.1000ventures.com/business_guide/crosscuttings/cultures_east-west-philosophy.html; or Understanding Cultures - an essential guide to doing business in multi-racial communities, Fagan, Sally (2002), <http://www.rendez-vousm.com/UC.doc> (Last visited 19 June 2010) (Note there are over 19 million references on the topic when searching in Google)

⁴⁹⁹ See Legacee website, "The Global Leader: Understanding Chinese Business Culture and Business Practices", to be viewed at <http://www.legacee.com/Culture/CultureOverview.html> (Last visited 29 June 2010)

Cultural Values Expressed	West (America & most European countries)	East (The Chinese and Most Asian cultures)
Expression of Self	'I'-oriented Sender-oriented	'We'-oriented Receiver-sensitive
Thinking Orientation	More rule based or based on application of abstract principles such as regulations or laws	Tends to take context and the specific situation into account in rule interpretation
The Individual	Has to have rights and greater need for autonomy and individual achievement	Group duty preservation of harmony
Nature of the Business Relationship	Less important, tend to substitute relationship for written agreement, superficial, easy to form, not long lasting	Most important business cannot occur until relationship is sound, written agreement secondary to Guanxi, hard to form, long lasting
Conflict Resolution	Trial or confrontation, use of lawyers and courts	More mediation through trusted third parties
Time Sense During Meetings	Be on time and end on time	Appointments less driven by exact start and end times
Conflict results	Perception of 2 states: win or lose	Win-Win To lose is to win Lose in order to win

2 Cultural overview

Culture is an important variable in relationship creation and network formation. It is likely to influence any transaction considered as well as the atmosphere in which a business negotiation takes place.

2.1 China

To understand the culture embedded in China one has to recognise the deep-rooted nature of Confucianism.⁵⁰⁰

⁵⁰⁰ Although the Confucian system is not now in official vogue in China, the influence is still felt in many facets of Chinese life. For the business person expecting to trade with China, an understanding of this system is essential. Confucianism is so ingrained after 2000 years that it cannot be ignored. It still forms the basis of most business practices in China.

Confucianism is an ancient Chinese ethical and philosophical system originally developed from the teachings of the early Chinese philosopher Confucius⁵⁰¹ (*Kong Fuzi/K'ung-fu-tzu*, lit. 'Master Kung'). It focuses on human morality and good deeds. Confucianism is a complex system of moral, social, political, philosophical, and quasi-religious thought that has had tremendous influence on the culture and history of East Asia. Some consider it to be the state religion of East Asian countries because of governmental promotion of Confucian values.

Confucianism advocates *Li* (rites) as a basic doctrine. By giving prominence to the principle of *Li*, Confucianism calls for maintaining the established social order.⁵⁰² According to Confucius, everyone has a fixed position in society and provided each person behaves according to rank, social harmony is achieved. A foreign business person must understand the implications of this strong sense of hierarchy to do business successfully in China. Small events which might be irrelevant in another culture, can become important. For instance, when a group picture is taken, the most conspicuous position should be given to the one highest in rank in the group. Any breach of the rule may offend the group leader and cause business opportunities to slip away.

China has a long history of stability based on Confucian principles and they still form the basis of much of China's business practice.⁵⁰³ Some of the more important aspects of this philosophy are.⁵⁰⁴

- Rank and hierarchy are very important.
- Laws and external structure are not as important as relationships for problem solving ('rule by man' rather than 'rule by law').
- Family (and the extended family) is important.
- Business and business people are distrusted.
- The authority and decisions of superiors should not be questioned.
- Modernisation is desired.
- There is co-operation between government and business.
- Emphasis is placed on education.

⁵⁰¹ His teachings and philosophy have deeply influenced Chinese, Korean, Japanese, and Vietnamese thought and life.

⁵⁰² See <http://www.religioustolerance.org/confuciu.htm> and also Richard Hooker, "*Chinese Philosophy: Confucius*," at: <http://www.wsu.edu> (Last visited on 29 June 2010)

⁵⁰³ *Journal of Chinese Philosophy*, Vol. 19 No. 2, 1992, pp. 155-69, "Inherent limitations of the Confucian tradition in contemporary East Asian business enterprises" Oh, T.K.; also see A study by University of Aveiro, Portugal, "The Influence of Confucianism and Buddhism on Chinese Business: the Case of Aveiro, Portugal, *Tianbo Li, Gillian Owen Moreira*, see <http://www.immi.se/intercultural/nr19/tianbo.htm> (Last visited on 30 June 2010)

⁵⁰⁴ *Journal of International Management Studies*, Vol. 2, No. 2, August 2007, "Confucius on Management: Understanding Chinese Cultural Values and Managerial Practices", Charles A. Rarick, Purdue University Calumet to be viewed at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1082092 (Last visited on 30 June 2010)

- Business people dislike formal contracts.
- Successful people avoid extremes.
- Face must be maintained.

2.1.1 Guanxi

What makes China stand out as a global market potential despite its status as an underdeveloped country; is its sheer size, i.e. its huge and diverse population of close to 1.4 billion⁵⁰⁵ (as opposed to the US population of 309 million, and this makes China the world's largest consumer economy. This is why those who wish to trade with, and invest in, China must be most knowledgeable about *Guanxi*.

The term Guanxi (关系) is generally translated as 'special relationships' or 'connections'.⁵⁰⁶ The concept of Guanxi is tacitly embedded within the Confucius philosophy and it subtly defines the Chinese moral code.

In the Chinese business world, however, it is understood as the network of relationships among various parties that co-operate together and support one another.⁵⁰⁷ The Chinese businessmen mentality is very much one of 'You scratch my back, I'll scratch yours'. In essence, this boils down to exchanging favours which are expected to be done regularly and voluntarily. Therefore, it is an important concept to understand if one is to function effectively in Chinese society.⁵⁰⁸

Regardless of business experiences in your home country, in China it is the right 'Guanxi'⁵⁰⁹ that makes all the difference in ensuring that business will be successful. By getting the right 'Guanxi', the organisation minimises the risks, frustrations, and disappointments when doing business in China. Often it is acquiring the right 'Guanxi' with the relevant authorities that will determine the competitive standing of an organisation in China in the long run. Moreover, the inevitable risks, barriers, and set-ups you'll encounter in China will be minimised when you have the right 'Guanxi' network working for you. That is why the correct 'Guanxi' is so vital to any successful business strategy in China.

⁵⁰⁵ China's population is 20% of that of the whole world see estimates for 2010 on http://en.wikipedia.org/wiki/List_of_countries_by_population (Last visited on 26 July 2010)

⁵⁰⁶ Industrial Marketing Management, Vol. 24, pp. 207-14, (1995), "The benefits of 'Guanxi': the value of relationships in developing the Chinese market". Davies, H., Leung, T.K.P., Luk, S.T.K. and Wong, Y.H.

⁵⁰⁷ The ethics and positioning of Guanxi in China T.K.P. Leung, Y.H. Wong, Marketing Intelligence & Planning 19/1 [2001] 55-64 # MCB University Press [ISSN 0263-4503] this journal is available at <http://www.emerald-library.com/ft> (Last visited on 29 June 2010)

⁵⁰⁸ Journal of Chinese Philosophy, Vol. 19 No. 2, 1992, pp. 155-69., "Inherent limitations of the Confucian tradition in contemporary East Asian business enterprises", Oh, T.K

⁵⁰⁹ Chinese Business Culture, Guanxi, An Important Chinese Business Element by Los Angeles Chinese Learning Center, to be found here <http://chinese-school.netfirms.com/guanxi.html> (Last visited on 29 June 2010)

Although developing and nurturing the 'Guanxi' in China is very demanding on time and resources, the time and money necessary to establish a strong network is well worth the investment.

There are however other views that the value and effectiveness of the *Guanxi* has greatly deteriorated, as the Chinese economy has become increasingly marketised, privatised and competitive. In industries that have been substantially deregulated or privatised or where there is vigorous competition, business is business, and *Guanxi* has been neutralised or marginalised and there are some views⁵¹⁰ that the role of relationships or connections now resembles that which is found elsewhere.

2.1.2 Chinese business culture

The Chinese culture is distinguished from the Western culture in many ways, including the manner in which business is conducted. For example, the Chinese prefer to deal with people they know and trust. On the surface, this does not seem to be much different from doing business in the Western world. In reality the heavy reliance on relationship means that Western companies have to make themselves known to the Chinese before any business can take place. Furthermore, this relationship is not simply between companies but also between individuals on a personal level. The relationship is not just before sales take place but it is an ongoing process. The company has to maintain the relationship if it wants to do more business with the Chinese. In Chinese business culture, the collectivist way of thinking still prevails, even in sectors experimenting with free enterprise.

'Saving face' is an important concept to understand; a person's reputation and social standing rests on this concept. Causing embarrassment or loss of composure, even unintentionally, can be disastrous for business negotiations.

Seniority is very important to the Chinese especially if you are dealing with a State owned or government body. Instead of addressing the other party as 'Mr or Mrs So- and-So', it is always appropriate to address the other party by his designation i.e. 'Chairman So-and-So, Director So-and-So or Manager So-and-So'. Any handouts, such as documents for a meeting, brochures or business cards, need to start with the most senior person before moving down the line. When handing out a name card or receiving one, ensure that you are stretching out with both hands with the card. Remember to face the card you are giving out in a manner such that the receiving party gets it facing him correctly.

⁵¹⁰ "China business culture: What part should "Guanxi" play in importing from China?", Shawn He Yuxun to be found at <http://www.smartchinasourcing.com/china-business-culture/china-business-culture-guanxi.html> (Last visited on 29 June 2010)

The foreign investor needs to realise that China is a 'fragmented' market. Experience in doing business in Beijing would be vastly different from that of doing business in Shanghai, or Shenyang. It would be useless to generalise the 'Chinese Business Culture' ⁵¹¹ *per se*.

2.2 Japan

Culture is an important variable for comprehending the actions of any population and this is particularly true when analysing the Japanese, with their fierce pride of customs and heritage.

The culture of Japan⁵¹² has evolved greatly over millennia, from the country's prehistoric culture to its contemporary hybrid culture which combines influences from Asia (and specifically the Chinese Culture, Europe and North America).

The Japanese worldview is guided by a basic philosophy deeply rooted in ancient Shinto⁵¹³ beliefs on human origins and relations with the spirit world, modified by later adaptations of Confucian ideas on societal relationships and order and Buddhist concepts of karmic causation and an afterlife. The Japanese are very conscious of their position in society and the various roles that they are expected to play throughout their lives. They place a high premium on social harmony and will go to great pains to avoid bringing disgrace on their families and other groups with which they are associated, by disrupting that harmony.

There are basically 5 cultural concepts⁵¹⁴ that have strong implications for how Japanese companies do business:

- Cultivating long-term relationships with focus on interest of the other party rather than oneself, loyalty, harmonisation, and so forth.⁵¹⁵
- Knowing one's place: role and rank.

⁵¹¹Harvard Business Review, Vol. 64 No. 4, 1986, pp. 75, 81-4, "The China trade: making the deal work", Hendryx, S.R.

⁵¹² As defined on Wikipedia to be found at http://en.wikipedia.org/wiki/Culture_of_Japan

⁵¹³ As defined by Wikipedia "**Shinto** (神道 *Shintō*[?]) is the native religion of Japan and was once its state religion. It is a polytheistic and animistic faith, and involves the worship of *kami* (神[?]), or spirits."

⁵¹⁴ "Confucian ethics and Japanese management practices", *Global Business Review*, Vol. 7 No. 8, 1988, pp. 575-84, Dollinger, M.J.

⁵¹⁵ Sincerity to most Westerners means free from pretence or deceit; in other words, honest and truthful without reservations. But the typical Japanese, being *Makoto* (mah-koe-toe) means to properly discharge all of one's obligations so that everything will flow smoothly and harmony will be maintained. It also means being careful not to say or do anything that would cause loss of face. By extension, it further means that *Makoto* people will not be self-seeking; will not get excited or provoke others to excitement; will not reveal their innermost thoughts if they are negative; will not, in fact, do anything disruptive. This, obviously, does not necessarily include or require strict adherence to what Westerners like to call honesty and frankness, since harmony of a kind can be maintained indefinitely as long as both sides play according to the same rules. And the Japanese, just like the Westerners, tend to think and behave as if their rules were the ones being used.

- Keeping face, i.e. appearances matter greatly and as such, difficult issues communicated through indirect, nonverbal subtext - it is easier to deny or shift direction and people give each other private space.
- Following form, i.e. there is a correct way of doing almost everything.
- Working: diligence and details, endurance, i.e. working steadily matters more than quality or quantity of work completed, generally slowly paced.

It is however to be noted that the cultural patterns found in particular industries, regions, economic classes, and of corporations themselves vary substantially. Preferred cultural practices have changed in response to globalisation and the economic downturn in the 1990s.

2.2.1 Japanese business culture

Japanese business culture is wrongly perceived as the biggest obstacle to starting business in Japan for many foreign companies thinking of entering the Japanese market. Inevitably Japanese business culture is different to that of the US or Europe, but the differences do not make it any more risky to do business in Japan than elsewhere in the world. In fact, certain aspects of Japan's business culture, especially the very stable, long-term relationships resulting from the conservative Japanese sense of loyalty to trusted partners, can be very beneficial for those foreign companies that understand how to swim with the cultural tide as opposed to vainly struggling against it.⁵¹⁶

Japanese business people often seem to be more concerned with form and manner than they are with the end results of any effort, although results are, of course, important to them. Since this attitude is practically opposite to typical Western thinking, it naturally causes varying degrees of misunderstanding and friction between the parties involved.⁵¹⁷

Decisions are made using the concepts called *nemawashi* and *uchiawase*.⁵¹⁸ 'In Japan, if you do *nemawashi* while setting up a business relationship, if you take care of the roots and have made all of the necessary preparations, the deal will almost always succeed, but it takes time'.⁵¹⁹

⁵¹⁶ Decision Making and Japan, "A study of corporate Japanese decision –making and its relevance to Western Companies", 1995, ISBN 1-873410-24-4. Taplin, Ruth

⁵¹⁷ The Japanese and 'Face' to be found at http://www.myjapanphone.com/japan_business_servive/basic_business_enviroment/The_Japanese_and_Face.html (Last visited on 29 June 2010)

⁵¹⁸ The concept of the wrapping the roots of a tree that is going to be transplanted. You dig around the roots very carefully. As each root is exposed, you wrap it in a damp cloth, and at the end of the process, the tree is easily transplanted and is ready to live, thrive and succeed," see Toshika Takenaka: "Does a Cultural Barrier to Intellectual Property Exists? The Japanese Example, 29 N.Y.U.J. & Pol 153 (1997)

⁵¹⁹ Supra Dollinger

Similar to the Chinese, 'Face' is quite important to the Japanese.⁵²⁰ Face is a mark of personal dignity and means having high status with one's peers. The Japanese will try never to do anything to cause loss of face. Therefore they do not openly criticise, insult, or put anyone on-the-spot. Face can be lost, taken away, or earned through praise and thanks.

Their culture supports the idea of dependably assuming your role, blending into the group and maintaining harmony.⁵²¹ This helps explain their corporate culture and mentality as well. In Japan, rules, structure, and hierarchy are meant to be followed. Assuming and accepting a life that includes the daily risk of an entrepreneurial venture, may not come easily. However, over the past twenty years, Japan has proven to be very successful in developing technology and in developing new ideas; hence, their deference to group interests and careful and conservative decision-making is not necessarily incompatible with successful entrepreneurship.

3 Cultural differences affecting deals

When working in the global commercial environment, knowledge of the impact of cultural differences is one of the keys to international business success. Improving levels of cultural awareness can help companies build international competencies and enable individuals to become more globally sensitive.

Each country has its own cultural standards of being, thinking, and acting, and these cultural differences strongly influence working values and business communication. What may be considered perfectly acceptable and natural in the workplace of one country, can be considered confusing or even offensive in the workplace of other country.

A few specific aspects of the more prominent cultural differences are discussed below.

3.1 Communication

Most breakdowns in communication are a result of deep-seated cultural differences, and while both sides now know that differences exist, and in fact usually know at least superficially, what some of the most important differences are, there is often still a substantial disconnect when it comes to understanding those differences.⁵²²

⁵²⁰ See http://www.bestcountryreports.com/Id=Busi_Japan_Business_Culture.html (Last visited on 29 June 2010)

⁵²¹ JAPAN TIMES ONLINE, June 3, 2004, *Changing The World One Byte At A Time: Internet Star Spreads The Blogging Gospel*, Yuri Kageyama, at <http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?nn20040603a8.htm> (Last visited on 29 June 2010)

⁵²² Much of the work in cross-cultural communications studies dates back to the 1950s and cultural anthropologist Edward Hall, who in 1960 published "The Silent Language of Overseas Business" in the Harvard Business Review. Hall developed the

In the West the so-called low-context culture, people tend to feel uncomfortable with silences. Verbalisation is the norm. In the Asian, so-called high-context culture of communication, and in decision-making, unspoken words are very meaningful and although verbalisation occurs, non-verbal communication in terms of body language, situation and timing, rather than what is said,⁵²³ often gives a more accurate clue as to what the decision will be rather than what is said.⁵²⁴

Thus when high-context culture is in negotiations with low-context culture, those things which were previously left unsaid now must be said. If they're not, the miscommunication that occurs at that point is often just the first of a long line of future miscommunications.

To add to this complexity, as was mentioned in the general overview of Japanese and Chinese culture above, there is the feature of saving face. Polite language is often used to cover face. This is very important in the Asian context, not only for communication between people but also in terms of contractual obligations to companies and corporate decision-making.⁵²⁵

3.2 Relationship- time factor

Perhaps the most fundamental difference between Western and Eastern business relationships is the role of time.

Western businesses, especially publicly-held companies, tend to look for quick returns on their investments and while a good working relationship with the local partner is thought of as a bonus, it is considered far removed from the most important part of the deal. As a generalisation, in the Western world the deal defines the relationship. You have a deal, then you have a contract, and then you have a relationship. It's the complete opposite of the high-context cultures of Asia. In much of Asia the entire partnership is built upon a good business relationship and a much longer term view is taken regarding profits.⁵²⁶ A good example to illustrate this is the practice of sales-people cold-calling potential customers. This just would not happen in the Asian culture. Nobody would think to make the phone call, because nobody is going to buy without a pre-existing relationship.

concepts of high-context cultures and low-context cultures. Low context cultures being typically Europe and the USA and high context that are more common in Asia, see as an example discussion on <http://www.analytictech.com/mb021/cultural.htm> (Last visited on 1 July 2010)

⁵²³ "Decision-making in Japan – A study of corporate Japanese decision-making and its relevance to Western companies" by Ruth Taplin, 1995 – ISBN 1-873410-34-4

⁵²⁴ "Decision-making in Japan – A study of corporate Japanese decision-making and its relevance to Western companies" by Ruth Taplin, 1995 – ISBN 1-873410-34-4

⁵²⁵ *Supra* Takanake

⁵²⁶ *Supra* Takanake

Negotiations with Asian businesses can progress very slowly because of an inherent cultural attitude of considering each matter carefully and involving the participation of all those affected in the entire process of defining, solving and acting upon a problem.

Foreign investors in Asia often underestimate the amount of time that will be required to establish a successful relationship with their local partner, which means they underestimate the amount of money they'll need to invest in the partnership.

Given all the differences, investors would be wise to keep in mind that Asia is a large continent, home to many different cultures with different local characteristics.

To be successful in China, Japan or anywhere else in Asia, you need to deal with the people rather than dealing with 'the Chinese' or 'the Americans' or 'the Europeans' in general. Find a good and trustworthy partner and you could make a lot of money. Find a dishonest or unreliable partner, and you may only lose money.

The following is a list of pointers that summarises the essence that companies doing business in Asia should be aware of during negotiations:⁵²⁷

- Asian business people will react unfavourably to a person they consider being ill-mannered, inconsiderate or conceited and welcome someone who is honest, courteous and determined in approach.
- Asian cultures place an emphasis on establishing a relationship, and therefore will focus on learning about your company before concentrating on the agreement.
- Avoid embarrassing people and causing them to lose face in the presence of others. If possible, criticise in private, or even better, use an intermediary to convey.
- Conduct a feasibility study on the Asian company prior to your first meeting. Research current economic conditions and government policies as thoroughly as you can.
- Eating and drinking play a key role in business in Asia, and it is often during dinner that the most important business relationships develop.
- Gift giving is normal Asian business practice and only small gifts are necessary (e.g. a bottle of alcohol, carton of cigarettes et cetera). Lavish gifts may indicate that a special favour is expected in return, so beware.

⁵²⁷ Mastering Business in Asia: Negotiation, By Gray, Rodney, Publication: Strategic Communication Management, 1 February 2007 to be found here <http://www.allbusiness.com/sales/selling-techniques-negotiating-sales/4064112-1.html> (Last visited on 15 Oct 2009)

- Good preparation is essential in order to achieve an acceptable result. Expect your opposition to know your company, your products and the industry and to ask penetrating questions.
- In most negotiating sessions, business people will speak both their native language and English. Western negotiators should therefore have available a native speaker on their team.

4 Asian cultural barrier to intellectual property

4.1 General

Exploitation of intellectual property makes business sense and as such should be integrated within the business model of a company, to be instrumental to successfully achieving sustainable profits. It is however to be borne in mind that despite all the changes in intellectual property rights and legislation in both China and Japan, these countries still consider intellectual property as an afterthought rather than integral to business strategy. Although it is to be noted that recent development in both China⁵²⁸ and Japan⁵²⁹ has shown a marked shift in how technology companies view and treat intellectual property, they still have a long way to go.⁵³⁰ Yet the drivers of change in Asia are not politicians, lawyers or the law itself. In most cases legislation is a reaction to commercial desires, which in turn are influenced by a variety of factors, including industry changes, trade societal changes and changes in the way that IP is utilised in the primary markets, such as Europe and the US. This is an important consideration in developing and implementing intellectual property business models in Asia.⁵³¹ Although, since around 1990, intellectual property rights have asserted their legal presence in countries throughout Asia and the TRIPs agreement has in many cases been the catalyst, their legal framework has come with complex, inescapable influences from Asian history. This includes religious factors, traditional bureaucracies, and the heritage of colonialism and communism.⁵³² It is often these distinct cultural aspects or barriers that continue to raise difficulties for businesses, as they seek to protect their intellectual property rights in these vibrant growing markets.

⁵²⁸ "China Today: Intellectual Property Protection in China: Does it Warrant Worry?" by May 1, 2007 By Eric S. Langer, BioPharm International to viewed <http://biopharminternational.findpharma.com/biopharm/Article/China-Today-Intellectual-Property-Protection-in-Ch/ArticleStandard/Article/detail/423187> (Last visited on 29 June 2010)

⁵²⁹ Intellectual Asset Management Magazine, Maximising IP Value for business, December/January 2008, Issue 27, "Japanese Intellectual Property typhoon still not even a tropical storm", by Terry Ludlow

⁵³⁰ See Asian Intellectual Property, International Law & Management Review, Issue 1, Spring 2005: "The Viability of Stimulating Technology-Oriented Entrepreneurial Activity in China, Taiwan, Japan, and South Korea: How Regulations and Culture Encourage the Creation, Development, and Exploitation of Intellectual Property", Goldberg, to be viewed at, http://www.byuilmr.org/index.php?option=com_content&view=article&id=6%3Avolume1spring2005&Itemid=8 and <http://www.byuilmr.org/media/articles/goldberg-asianip.pdf> also see Center for Advanced Defense Studies, Defense Concepts Series, July 2006: "The Intellectual Property Challenge in China" at <http://www.articlesbase.com/affiliate-programs-articles/intellectual-property-protection-in-china-76016.html> (Last visited on 29 June 2010)

⁵³¹ "Intellectual Asset Management, Protecting Intellectual Property in China", Chemical Week, January 18, 2006, pp 21-23.

⁵³² Intellectual Property Law in Asia, December 2002, Christopher Heath, ISBN 9041198946

What a 'cultural barrier to intellectual property' may be, is not explicitly clear, but one tends to find the underlying meaning in essence to exist in arguments such as the following (allegedly made by the West).⁵³³

- The application of the concepts of competition and monopoly to intangibles such as technology and ideas is foreign to Asian countries.
- Imitation of technological innovation is rooted in the culture.
- Asian countries only use basic developed technology and do not add any new innovation themselves.

To see these aspects in context it is necessary to briefly review the history and cultural influence with emphasis on IP development.

4.2 China

China is conventionally depicted as one of the main offenders in the international intellectual property rights arena with a strong perception of legislative shortfalls.⁵³⁴

The basic problem with enforcing intellectual property rights in China is not legal or based on stages in economic development, but arises from intellectual and cultural dissonance.⁵³⁵

China is simply different. The country has experienced historically unprecedented rapid change. One of the results is an uneven distribution of business norms and practices within the population and across geographic regions.⁵³⁶

Furthermore, one has to bear in mind the IP related 'economic' development in China:⁵³⁷

'First is piracy, when copying what is plainly visible helps to generate fast economic growth; second is imitation, where a copied design is expanded, improved or made more efficient and third is innovation', and the influence of Confucianism.

⁵³³ Supra Takanake

⁵³⁴ Intellectual Property in the Global Trading System, Springer Berlin Heidelberg Publishers, ISBN 978-3-540-77736-6 (Chapter 4 – "Intellectual Property in the Global Trading System EU-China Perspective" by Wei Shi" to be found here <http://www.springerlink.com/content/x6270086vv122167/> (Last visited on 12 June 2010)

⁵³⁵ Neo-Confucian vs. Communist influences on "Chinese views of intellectual property" by Dr. John Lehman Professor of Business Administration School of Management University of Alaska Fairbanks Fairbanks Alaska USA john.lehman@uaf.edu presentation to be found here <http://pnclink.org:8080/pnc2006/Presentation%20material/e-publishing%20--%20John%20Lehman.pdf> (Last visited on 12 June 2010)

⁵³⁶ China Law and Practice, March 2008, "Investigative Due Diligence and M&A in China", pp 88-90

⁵³⁷ Taiwan NCCU University in an article in Intellectual Asset Management, October/November 2008 "Inside the IP Markets of North Asia", Director Paul Lui

4.2.1 Confucian values and intellectual property

The prevailing point of view is that Confucianism provides a pervasive and unconscious influence on the comprehension of, and commitment to, intellectual property laws.⁵³⁸ As the oldest continuous civilisation in the East, China has long been regarded as an 'exceptionally creative and inventive' nation and has enjoyed a remarkable history of technological and creative enterprise. It is common knowledge that the Chinese invented a number of items prior to the 'invention' by, or use thereof in the West.⁵³⁹ The famous 4 great inventions, i.e. papermaking, typography, the compass, and gunpowder,⁵⁴⁰ have profoundly impacted the world's economy and human culture and were all creations of China. Trade marks in China can be traced back to the Tang Dynasty (618-907 A.D.), when traders 'started using marks and logos to distinguish goods'.⁵⁴¹ During the Ming and Qing Dynasties an 'informal system of guild registration and protection of trade marks was instituted where a manufacturer could register his trade mark with other guilds.' The earliest (221 B.C) historical records dealing with intellectual property rights in China indicate the concern of officials with publication and republication of works related to the imperial throne.⁵⁴²

In contrast to most Western societies, Confucian ethics is composed not of 'individuals' *per se* but of their interconnections and interdependencies.⁵⁴³ Accordingly, Confucian ethics places a relatively low value on terms based on individuals and profit, but it does place value on the concept of communal property.

Confucianism does not reject personal rights but affords protection in a different way. Its emphasis on 'personal development', in contrast to personal gain, helped create a culture in which the individual was viewed as quite important, but primarily so because of his or her contribution to society.

⁵³⁸ North Carolina Journal of International Law and Commercial Regulation Fall 2006, "CULTURAL PERPLEXITY IN INTELLECTUAL PROPERTY: IS STEALING A LOOK AN ELEGANT OFFENSE?" By Wei Shi (PhD Candidate, St. John's College, University of Cambridge; Fellow of Cambridge Overseas Society, University of Cambridge; Visiting Fellow of Lauterpacht Centre for International Law, University of Cambridge. to be found here http://law.upd.edu.ph/internet_society/session%205/Shi,%20Cultural%20Perplexity,%20Intellectual%20Property,%20Book%202006.doc (Last visited on 29 June 2010)

⁵³⁹ John R. Allison & Lianlian Lin "The Evolution of Chinese Attitudes toward Property Rights Invention and Discovery", 20 U. Pa. J. Int'l Econ. L. 735, 742 (1999), obtainable from international.westlaw.com

⁵⁴⁰ Joseph Needham, Science and China's Influence on the World, in the Legacy of China 234 (Raymond Dawson ed., 1971); Robert K. G. Temple, The Genius of China: 3,000 Years of Science, Discovery, and Invention (1986).

⁵⁴¹ Hamideh Ramjerdi & Anthony D'Amato, The Intellectual Property Rights Laws of The People's Republic of China, 21 N.C. J. Int'l L. & Com. Reg. 169, 172 (1995), obtainable from international.westlaw.com (Last visited on 29 June 2010)

⁵⁴² STANFORD JOURNAL OF EAST ASIAN AFFAIRS, SPRING 2001, VOLUME 1, "Trade Sanctions and the Rule of Law: Lessons from China, 1 Stan. J. E. Asian Aff. 46, 51 (2001), Baum, Charles, see <http://www.stanford.edu/group/sjeaa/journal1/china4.pdf> (Last visited on 29 June 2010)

⁵⁴³ See <http://www.travelchinaguide.com/intro/religion/confucianism/> (Last visited on 29 June 2010)

Private property rights are among the fundamental concepts upon which many Western states are built.

Intellectual property rights were essentially created through the Western concept of private property rights and benefits.⁵⁴⁴ At the international level, the objective of the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPs) is to support liberalisation of the international trading system while protecting the private monopoly rights of intellectual property owners by reducing piracy and eliminating of 'free-riding'.⁵⁴⁵ The preamble of the TRIPs Agreement highlights these objectives by explicitly emphasising the need to protect private interests by committing members to a shared objective of 'desiring to reduce distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights'.⁵⁴⁶

In contrast to Western notions of property rights, Communism, the extraordinary social experiment promising equality and freedom in the twentieth century, substantially impacted cultural perceptions in modern China.⁵⁴⁷ Traditional private rights were viewed as a form of individualisation which is considered wicked and vicious and in addition to this, unlike most developed countries the Constitution of China does not address intellectual property rights.⁵⁴⁸

A notable characteristic of China's legal landscape is the government's establishment of the interrelated doctrines of legal equality and political inequality in the context of civil obligations, i.e. Chinese people do not, or dare not, believe that individuals are endowed with rights that they are entitled to assert, particularly with respect to those in positions of authority.⁵⁴⁹ As such, China still has a long way to go in order to fully protect private rights.

Under the set of Confucian ethics there appears no credible evidence of a link between honesty and loyalty on the one hand and counterfeiting and piracy on the other.

⁵⁴⁴ Westlaw.com website, "Stop Relying on Uncle Sam! --A Proactive Approach to Copyright Protection in the People's Republic of China", 6 Tex. Intell. Prop. L.J. by Eric M. Griffin, 169, 182 (1998) to be found on <http://international.westlaw.com> (Last visited on 29 June 2010)

⁵⁴⁵ Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments-Results of the Uruguay Round, 33 I.L.M. 81 (1994)

⁵⁴⁶ See TRIPS

⁵⁴⁷ Robert Weatherley, *The Discourse of Human Rights in China: Historical and Ideological Perspectives* (examining the relationship between private individual rights and the superiority of collective interests under the Marxist ideology), New York and London: St. Martin's Press, 1999. ix, 185 pp. ISBN 0-312-22281-5, pp 93, 104.

⁵⁴⁸ *Law In Imperial China: Exemplified by 190 Ch'ing Dynasty Cases* 18- 21 (Derk Bodde & Clarence Morris eds., 1967).

⁵⁴⁹ Scott J. Palmer, *An Identity Crisis: Regime Legitimacy and the Politics of Intellectual Property Rights in China*, 8 Ind. J. Global Le. Stud. 449, 456 (2001).

While China shares the Confucian tradition with Japan, China's unique socialist ideology, administrative decentralisation, inadequate judiciary and huge but inefficient bureaucracy have made intellectual property enforcement difficult.⁵⁵⁰

Nonetheless, it is important to note that, for practical purposes, any approach to effectively analysing and clarifying intellectual property right issues in China must rest on a balanced interplay of political and cultural fundamentals. Even if it reaches an appropriate stage of economic development, without these 'fundamentals', the enforcement infrastructure will be endorsed neither by political will of the authorities nor by the cultural perception of the citizenry.

4.2.2 China's IP Law and policy history

China has been engaged in intellectual property protection for over 2 decades, which has resulted in comprehensive and substantive legislation.⁵⁵¹ The protection of intellectual property rights preceded recognition of general private rights. Within this context, the commitment to protection of intellectual property rights cannot be regarded as unalterable. Establishing a substantive private rights system in China and giving its citizenry private property rights, are by no means a quick or easy solution to China's intellectual property rights enforcement problem. They should be regarded as long-term policies that need to be underpinned in order to create a sound basis for further economic development.⁵⁵²

Since the mid-1990s, China has introduced many new intellectual property statutes and Regulations and has entered into various international treaties. In 1996 China issued the Regulations on the Certification and Protection of Famous Trade marks and the Regulations on the Protection of New Plant Varieties, while amending its Criminal Law to include a section on intellectual property crimes.⁵⁵³ Furthermore, China amended its Scientific and Technological Progress Law⁵⁵⁴ which applies from 1 July 2008. This law deals with innovation in the country and lead to the publication of the long-awaited National IP

⁵⁵⁰ Which is seen to be one of China's greatest shortcomings as a trading partner see "Intellectual Property Challenges for US Companies operating in China, Intellectual Property Today, Dec 2006 By AE Bates

⁵⁵¹ See Chapter I – Intellectual Property Protection in China

⁵⁵² See Frederick M. Abbott, The WTO TRIPs Agreement and Global Economic Development, in Public Policy and Global Technological Integration 3, 4-12 (1997).

⁵⁵³ CHINA DAILY, Nov. 10, 1997 Issue, "*China: Laws Being Promulgated to Protect IPR*", available at 1997 WL 13647865 to be viewed at http://article1.chinalawinfo.com/article/user/article_display.asp?ArticleID=20014#m26 (Last visited on 1 July 2010)

⁵⁵⁴ Managing Intellectual Property "China gets ready for National IP Strategy" - Peter Ollier, Hong Kong to be found at <http://www.managingip.com/Article/1853384/China-gets-ready-for-National-IP-Strategy> (Last visited on 29 June 2010)

Strategy⁵⁵⁵ that was completed in June 2008,⁵⁵⁶ and lead to the Revised Law that was promulgated in Dec 2009.⁵⁵⁷

The change in China with regards to intellectual property right protection can be ascribed to 3 main attributes:

1. Foreign and local businesses, trade associations, and industry groups have been very active in promoting intellectual property right awareness among the Chinese people. An example of this being Business Software Alliance and the Chinese Software Alliance to promote the use of original software in China.⁵⁵⁸ The Chinese have become increasingly aware of the basic functions of, and the rationales behind, intellectual property rights related directly to the country's domestic growth and international reputation.⁵⁵⁹
2. The Chinese, in particular their leaders, have begun to notice the benefits of protecting intellectual property rights. The Chinese government has assisted the establishment of various enterprises and institutes to which intellectual property rights are particularly important and which focuses on innovation.⁵⁶⁰ The Chinese leaders no longer consider intellectual property rights exploitative devices that help protect the West's dominant position. Rather, they have begun to see how these tools can help promote national growth.⁵⁶¹ As a matter of fact, based on patent statistics in a report released on 10 December 2008, by Thomson Reuters Scientific⁵⁶² 'China is set to dominate the patent landscape by 2012and to become the world's leading innovator'.

⁵⁵⁵ See Chapter 1 – "China Intellectual Property Legislation"

⁵⁵⁶ *Supra* Ling Ho

⁵⁵⁷ See Chapter II for detail

⁵⁵⁸ In an effort to promote a safe and responsible digital world, BSA has developed global educational programmes for elementary and higher education students that emphasize the importance of being good cyber citizens and respecting the intellectual property of copyrighted works. These programmes also encourage students to use only legal software and to understand the impact of software theft see

<http://www.thefreelibrary.com/BSA+Commemorates+World+Intellectual+Property+Day%3B+Organization+Joins...-a0131882848> (Last visited on 1 July 2010)

⁵⁵⁹ A Google search now on the keywords "Intellectual Property awareness and Chine" results in almost 4000 sites that addresses the topic

⁵⁶⁰ In 2006 to fully exhibit the intellectual property right protection achievements of China in 2006 co-inciding with China's "National IPR Week 2007" and "China High-level Forum on Intellectual Property Rights Protection 2007" the top ten IPR Protection Events in China was announced see http://www.china.org.cn/china/national/2007-04/19/content_1207992.htm (Last visited on 30 June 2010)

⁵⁶¹ "ROLE OF IP SYSTEM IN CHINA'S SOCIAL AND ECONOMIC DEVELOPMENT", TIAN LIPU
STATE INTELLECTUAL PROPERTY OFFICE OF CHINA,

APRIL 2008, to be viewed here http://www.lrpv.lv/dl/pdf/Conference_Lipu.pdf (Last visited on 29 June 2010)

⁵⁶² <http://tvnz.co.nz/technology-news/china-lead-in-patents-worldwide-2372113> (Last visited on 29 June 2010)

3. As the Chinese are now stakeholders, or potential stakeholders, they understand the danger of inadequate intellectual property protection and how the lack thereof could impair the well-being of their country while slowing down its development.⁵⁶³

They also realised the damage that the lack of intellectual property protection could inflict upon the country's international reputation.⁵⁶⁴

As a member of the WTO the Chinese understand that the stakes for the lack of intellectual property protection extend beyond the intellectual property arena,⁵⁶⁵ covering almost every other area that implicates international trade including agriculture, banking, electronics, insurance, professional services, securities, telecommunications, and textiles.⁵⁶⁶

Every economy reaches a point where it needs to create in order to advance and at that point IP gains intrinsic value. Given China's progressive investment in high-tech and basic science Research and Development, the country will reach that point where it has established the necessary infrastructure and know-how to become the innovators and IP creators it used to be, many centuries ago.

Although China has created intellectual property laws that generally adhere to international standards,⁵⁶⁷ poor enforcement continues to frustrate the efforts of companies to protect their intellectual property in China. As copying is less expensive than creating original items and it takes less effort and time, the temptation of large profits, little capital, and vast opportunities for employment is a difficult combination to resist. Under this scenario, it is no exaggeration that counterfeiting and piracy have developed into a nationwide economy contributor.⁵⁶⁸ Eliminating this would result in depriving communities of literally hundreds of jobs. By some estimates, piracy directly or indirectly employs 3 million to 5 million people and provides national income of between nineteen and twenty-four billion dollars.⁵⁶⁹

⁵⁶³ See as a reference Khaleej Times Online, "Can China's IP System Cope with the Rise in Patent Applications?", 16 January 2009, to be viewed at http://www.khaleejtimes.com/DisplayArticleNew.asp?section=marketing&xfile=data/marketing/2009/january/marketing_january18.xml (Last visited on 29 June 2010)

⁵⁶⁴ Leading to the Olympic Games in 2008 Chanel, Prada and three other luxury goods companies have won China's first copyright verdict against Silk Market shopping mall landlord indicating that China is a responsible member of the international business community that follows global norms. (See <http://www.asialaw.com/Article/1989377/Channel/16712/Big-brands-take-on-counterfeits-in-China.html>) (Last visited on 29 June 2010)

⁵⁶⁵ Supra Tian Lipu

⁵⁶⁶ Supra, Yu

⁵⁶⁷ China has accepted the World Trade Organisation's TRIPS (trade related aspects of intellectual property rights) agreement — see http://www.wto.org/english/tratop_e/trips_e/trips_e.htm (Last visited on 1 July 2010)

⁵⁶⁸ See Congressional Research Service, China-U.S. Trade Issues 12 (July 1, 2005) (stating that counterfeit goods are estimated to account for approximately 8% of China's GDP); see also Press Release, European Commission, EU Strategy to Enforce Intellectual Property Rights in Third Countries-Facts and Figures (Nov. 10, 2004), to be found at http://www.trade.ec.europa.eu/doclib/docs/2004/november/tradoc_119898.pdf (Last visited on 1 July 2010)

⁵⁶⁹ See Robert Marquand, China's Pirate Industry Thriving, Christian Sci. Monitor, Jan. 9, 2002, at 6. According to the Report of

Shutting down counterfeiting and piracy means will in many instances bring about problems of unemployment, dislocation and social chaos, which are problems that the Chinese government monitors closely. However, 'China is also facing increasing international pressure to crack down on piracy'.⁵⁷⁰

4.3 Japan

Although Confucian norms of social harmony and moral precepts have permeated the intellectual life of Japanese citizens and have played a pivotal role in moulding the Japanese culture as it exists today, Japan's economic progress is closely tied to its effective intellectual property policy and management.⁵⁷¹ Japan is however a high-tech economy and as such produces high numbers of patents. The patents are however, if one looks at the patent statistics, concentrated in the hands of large Japanese corporations, which makes entry of foreign licensors rather difficult.⁵⁷²

4.3.1 Confucian values and intellectual property

In Japan identifiable signs of Confucian values are numerous. The Japanese believe in a social and hierarchical order and collectivist ideology.⁵⁷³ The character of Confucianism in Japan is much more significant than that in China.⁵⁷⁴ However, within the diversity of its culture, each economy attempts to reach the same goal by different routes. The infrastructure of Confucian philosophy, based on the cardinal relationship and hierarchical order, has played a significant role in Japanese economic development and contributed substantially to its economic miracle after the Second World War. Japan's economic success demonstrates that Confucian values can act and have acted as a positive role in its economic and cultural prosperity.⁵⁷⁵

China State Counsel Development Research Centre, the estimated market value of counterfeit goods made in China was from \$19 billion to \$24 billion in 2001, which could well be a conservative figure. To be viewed here <http://www.highbeam.com/doc/1G1-95940444.html> (Last visited on 1 July 2010)

⁵⁷⁰ China Retaliating for WTO Complaint by Withholding Cooperation on Copyright Protection, By Daniel Schearf, Beijing 24 October 2007 to be viewed here <http://www.voanews.com/english/archive/2007-10/2007-10-24-voa9.cfm> (Last visited on 1 July 2010)

⁵⁷¹ Start-up ventures in late 19th century and early 20th century in Japan became industrial giants and pillars of the Japanese economy – Toyota, Matsushita, Sony and Honda – thanks to the patented inventions of their founders - "Hiramitsu Arai, Intellectual Property Policies for the Twentieth Century: the Japanese Experience in Wealth Creation, 1999" In "Intellectual Property: Source of innovation, creativity, growth and progress", ICC-BASCAP, 2005

⁵⁷² Intellectual Asset Management, October/November 2008 issue, "Inside the IP markets of North Asia", by Sachin Desia, pp 57-62

⁵⁷³ Refer to Japanese Culture discussion earlier in this Chapter

⁵⁷⁴ Supra Shi

⁵⁷⁵ Supra Shi

Although some drawbacks of Confucian ethics may still exist, Confucian elites have contributed to the social and political achievements of East Asian states such as Japan and Korea in the post-World War II era.

This was evident in the rapid and relatively egalitarian economic growth, stable families, and crime-free streets.⁵⁷⁶ Confucian ethics have made positive contributions, both in fostering domestic economic development and in maintaining intellectual property in different ways. It is just a matter of how to preserve the advantages of Confucian ethics while minimising its shortcomings.

To overestimate or even mis-estimate the influence of Confucian values can create a misleading stereotype and form of cultural bias.⁵⁷⁷

4.3.2 Japan's IP Law and Policy history

In Japan economic development has been linked from the very start to the introduction of industrial property rights.⁵⁷⁸ The Meiji regime established in 1868 transformed Japan from a feudal society into a modern state; legal systems, sciences, and technology were introduced from Western Europe and North America. The rapid growth of the 1960s was made possible in large part by the introduction of foreign technology.⁵⁷⁹

At the end of the nineteenth century, Japan became a member of both the Paris Union for the Protection of Industrial Property and the Berne Union for the Protection of Literary and Artistic Works.⁵⁸⁰ Japan thus paved the way for systemic legislation that indicated that intellectual property rights should play an important role in the country's national industrialisation and cultural renaissance.

In terms of the legislation, although Japan has enjoyed the longest tradition of intellectual property rights in Asia with a comparatively affirmed notion of intellectual property laws, the major driving force for developing a western-style intellectual property right legal system in Japan during the Meiji Period was to promote Japan to become 'an advanced nation by copying the western'⁵⁸¹ intellectual property right legal systems.⁵⁸²

⁵⁷⁶ International Conference on Universal Ethics and Asian Values (Oct. 5, 1999), "Confucian Values for the Next Millennium", Daniel A. Bell, <http://www.unesco.or.kr/ethics/bell.htm> (Last visited on 4 July 2010)

⁵⁷⁷ *Supra* Bell, note 245

⁵⁷⁸ *Supra* Shi

⁵⁷⁹ The Journal of Asian Studies, Vol. 42, No. 4 (Aug., 1983), Why Has Japan "Succeeded"? Western Technology and the Japanese Ethos. by Michio Morishima, pp. 966-967

⁵⁸⁰ See The Paris Convention for the Protection of Industrial Property, July 14, 1967, 21 U.S.T. 1583; Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, 25 U.S.T. 1341, 828 U.N.T.S. 211 (last revised at Paris, July 24, 1971).

⁵⁸¹ "The Future of Intellectual Property Law: Japanese and European Perspectives Compared 1 (Working Papers of Oxford IP Research Centre, Working Paper No. 09/99)", by David Vaver, to be found at <http://www.oiprc.ox.ac.uk/EJWP0999.pdf> (Last visited on 1 July 2010)

Although an ‘imitation’, it is however clear from a reflection on the law that there are significant differences of approach between Japanese and European IP laws.⁵⁸³ This is because the country is culturally a part of Eastern Asia, its legal implementation, hence legal enforcement is strongly influenced by Asian philosophy.⁵⁸⁴

In the 1960s the United States Patent Office normally approved or disapproved an application for a patent within eighteen months; in contrast, it took the Japanese Patent Office (JPO) an average of 5 to 7 years. The JPO required ‘full disclosure of the technology submitted in the application for the accommodation of imitation.’⁵⁸⁵ In addition, although Japan had joined the Paris Union on 15 July 1899, as recently as the 1990s, the duration of patents in Japan could be shorter than twenty years, which is the minimum duration agreed to in the TRIPs Agreement. It was not until 1994 that the patent law was amended and improved to guarantee at least twenty years after the application for the patent.⁵⁸⁶

Strong IPR protection only came into being in Japan when external pressure was created by the United States and lobbying pressure was raised by the domestic industrial sectors.⁵⁸⁷ In this sense, it was only recently (Japan joined WTO and signed up to TRIPS in 1994⁵⁸⁸ effective 1 January 1995) that Japan substantially came into harmony with international standards and embarked on a national undertaking with a view to the construction of a nation built on intellectual property.⁵⁸⁹

The intellectual property right system developed essentially in 3 stages:⁵⁹⁰ First is the stage of attracting foreign investment and advanced technology from overseas, which is the stage when Japan did not have sufficient technology of its own.

⁵⁸² *Supra* Shi

⁵⁸³ *Supra* Vaver: “For example, in Japan an employer can be called the author of a work that is made by an employee on the job. In Europe, this would be rare: the employer will, as in Japan, usually own the copyright but the status of author is reserved to the human being who actually makes the work, not the entity which pays for the creation. The European rule may stem from a Romantic view of what it means to be an author or artist. This view emphasizes the individual, rather than the organization to which he belongs. The Japanese rule emphasizes the importance of the organization and teamwork, rather than the individual.”

⁵⁸⁴ “Selected Aspects of Enforcement of Intellectual Property Rights in Japan and Vietnam - A comparative study with respect to TRIPS standards of enforcement” by Viet D. Phan to be viewed at http://www.iip.or.jp/e/summary/pdf/detail2002/e14_15.pdf (Last visited on 1 Jul 2010)

⁵⁸⁵ Richard E. Vaughan, Defining Terms in the Intellectual Property Protection Debate: Are the North and South Arguing Past Each Other When We Say ‘Property’? A Lockean, Confucian, and Islamic Comparison, 2 ILSA J. Int’l & Comp. L. 307, 316 (1996)

⁵⁸⁶ *Supra* Vaughan

⁵⁸⁷ *Supra* Takanake

⁵⁸⁸ Negotiations Committee Original: English JAPAN Statement, “MULTILATERAL TRADE MTN.TNC/40/ST/20 NEGOTIATIONS 20 January 1994 Special Distribution THE URUGUAY ROUND (UR-94-0022) Trade by H.E. Mr. Nobutoshi Akao Ambassador to be found here http://www.wto.org/gatt_docs/english/sulpdf/92150145.pdf (Last visited on 1 July 2010)

⁵⁸⁹ “Intellectual Property Policy Outline”, July 3, 2002 Strategic Council on Intellectual Property to be found here http://www.kantei.go.jp/foreign/policy/titeki/kettei/020703taikou_e.html (Last visited on 1 July 2010)

⁵⁹⁰ WIPO Asian Regional Forum on Intellectual Property Policy Development, Tokyo, October 5, 1998, “The Importance of Intellectual Property Policy Development for Developing Countries”, Keynote Address by Mr. Takeshi Isayama Commissioner Japanese Patent Office, to be viewed at http://www.jpo.go.jp/cgi/linke.cgi?url=/shiryou_e/toushin_e/kouenroku_e/19970910.htm (Last visited on 1 July 2010)

Second is the stage of enhancing Japan's domestic technological capability and having imported technology become established in Japan, which is the stage when Japan gradually upgraded its technological development capabilities. The third is the stage of global technology competition mainly with self-developed technology. Japan has very strong internal Research and Development and most of technology transfer is internal.⁵⁹¹

The Japanese intellectual property regime is well developed and provides an integrated system designed to protect intellectual property rights⁵⁹² of local as well as foreign jurisdiction proprietors. However, the Japanese intellectual property right protection system is considered to be one of the more complex systems.⁵⁹³

4.4 Summary of Chinese and Japanese cultural values on IP enforcement

It is not easy to change deeply held cultural values, even if these values impinge on business revenues, i.e. the less confrontational nature to engage in infringement litigation.

Although there is an increase in both Japan and China's aggressiveness to enforce IP rights in these countries, it will take some time to get the enforcement level on that known to the West.⁵⁹⁴

Hand-in-hand with this is the imitation culture, although the focus in Japan is more on application and improvement innovation it does not mean that Japan is not a technological innovative regime. Regarding China, its recent efforts in establishing large Research and Development centres for technological development, as well as the revised Scientific and Technological Progress Law in January 2008, supports its incentive to once again be known as the global technical leaders.⁵⁹⁵

The establishment of various Western companies' industrial technology and research centres in China further shows that industry intends to ride the wave of the 'new China'.

⁵⁹¹ *Supra* Desia.

⁵⁹² Japan patent office website, http://www.jpo.go.jp/cgi/linke.cgi?url=/seido_e/s_gaiyou_e/4houe.htm (Last visited on 4 July 2010)

⁵⁹³ "Selected Aspects of Enforcement of Intellectual Property Rights in Japan and Vietnam - A comparative study with respect to TRIPS standards of enforcement" by Viet D. Phan to be viewed at http://www.iip.or.jp/e/summary/pdf/detail2002/e14_15.pdf (Last visited on 4 July 2010)

⁵⁹⁴ *Supra* Ludlow

⁵⁹⁵ "China & Hong Kong, recent Developments in Intellectual Property", by Cedric Lam, Janet Wong and Grace Wong, IP Value 2009, Building and enforcing Intellectual Property value 2009, pp199-202

5 Multinational companies

Whereas the context above considered mostly the situation where Western Companies deal with Eastern Companies, the role of culture in multinational companies should not be underestimated.

When it comes to international business, understanding cultural differences and promoting cultural sensitivity will help ensure that communication across borders is effective and that business transactions are successful.

Increasingly, managers must deal with multiple ethnic groups of varying cultures. As a consequence of globalisation most international companies have employees from Japanese, French, Chinese, German and various other nationalities. It is important to recognise that people from different cultures differ in a variety of ways, including ways of perceiving things, styles of dressing and manners of expressing personality/goodness.

Often conflict in the management of the business arises due to the embedded differences. Simply put, business tension can arise internally due to the cultural background differences of employees. For example, as people do not understand and necessarily respect each other's cultural background, misunderstandings arise as 'standard business practise' or 'business ethics' may have a diverse meaning between how an American colleague may perceive the concept as opposed to that of his Chinese colleague. There is also the aspect of seniority and how respect is shown in terms of age vs. experience, competency and skills.

These differences clearly would impact on how intellectual property of third parties is treated and respected, as well as how own intellectual property is managed and protected.

CHAPTER IV- INTELLECTUAL PROPERTY STRATEGY AND TECHNOLOGY EXPLOITATION

1 Business strategy considerations for intellectual property exploitation

1.1 Introduction

Intellectual property (IP) laws create exclusive rights by allowing intellectual property owners to prevent others from certain activities as defined by law for the different Intellectual property protection mechanisms.⁵⁹⁶ For example, a patent owner can prevent the use, making, exercising, disposing or offering to dispose of, and the importation and other actions governed by the law of any item that infringes on the invention as claimed in the countries where the patent is granted and maintained. IP proprietors can in addition to enforcement license, trade and dispose of their IP assets.

The knowledge economy has given rise to a new market in which intellectual assets, not physical assets, are the principal wellsprings of shareholder wealth and competitive advantage.⁵⁹⁷

A business thus has a competitive advantage over its competitors if it develops, maintains and exploits its intangible assets appropriately. As the economic and financial uncertainty persists in many parts of the world, now is the time for companies to harvest the intangibles. These assets are often the real drivers for value, revenue and overall sustainability.⁵⁹⁸ It is important to find the valuable intangible assets across the broad value chain and not focus only on the known intellectual property assets such as patents and trade marks, but to mine among technology, marketing, research and development (R&D), competitor analyses, products, services, communication, training and the like.

⁵⁹⁶ See Chapter II

⁵⁹⁷ Innovation Management Magazine, September/November 2007, Nr 3 "The Systematic route from business model to IPR strategy" by Prof Dr A Wurzer

⁵⁹⁸ Intellectual Asset Management, Issue 33 January/February 2009 "Use intangible assets to weather the financial crisis", by MD Moberly and J Cheon

1.2 The strategic approach for value

A good definition⁵⁹⁹ for an intellectual property strategy is *'Identifying, capturing, protecting and exploiting those aspects of a business that relate to differentiation or proprietary components so as to allow maximization of a companies' profits in comparison to those obtainable from bare commodity pricing.'*

With intellectual property assets increasingly dominating market capitalisation, intellectual property management cannot be ignored by a company seeking to maintain a competitive advantage. As more companies analyse their intellectual property and options for monetization, they will discover the value inherent in utilising their intellectual property as the new form of currency in today's global technology-driven market.

The particular value of the intellectual property asset will depend on the nature of the business, the strategic focus of the business, the objectives for commercialisation and economic gain as well as considerations such as tax savings. In any business economic gain, commercial development, business growth, technology transfer by means of licensing, joint ventures, mergers and acquisitions and related types of transactions, require proper strategic planning in defending and protecting intellectual property.

Businesses need to take a strategic view of their intellectual property. Many decisions involving intellectual property are made without a strategy. This leads to protection that is not cost effective and intellectual property that has no specific purpose. With no strategy, some businesses elect to do nothing about intellectual property because they cannot see the benefits. This is often the first area where costs are cut the moment the business experiences a financial cost-cutting incentive.

The business intellectual property strategy should include the development of an intellectual property portfolio that serves a pure strategic purpose either by blocking competitors from key areas of technology or markets for the business, or creating prior art that will affect the development of patent portfolios by competitors in key areas for the business, or simply creating an intellectual property portfolio that has exploitation potential, i.e. for licensing, 'currency' or attraction for M&A or similar investments.

⁵⁹⁹ IP Think Tank website to be viewed at <http://duncanbucknell.com/ipthinktank.blog/668/What-exactly-is-IP-Strategy--anyway> (Last visited on 22 June 2010) (This website provide quite insightful circulars and newsletters on IP strategy in general)

There are 3 main reasons to exploit or extract value⁶⁰⁰ from intellectual property:

1. to increase revenue through exclusivity or competitive advantage (**income**)
2. to increase recognition of products, services or name in the marketplace (**goodwill**)
3. to establish a bargaining position in a business transaction, e.g., raising capital, selling a business interest or resolving an intellectual property dispute (**asset**).

If exclusivity is a reason for exploiting, then the intellectual property protection selected should protect the competitive feature(s) of a product or service and be cost effective in view of the plans for marketing the product or service. Intellectual property protection does not guarantee the commercial success of a product or service but marketing plans should maximise the benefits of the investment in protection, to enhance the likelihood of commercial success. If there is no plan to market a specific feature of a product or service, then it is probably not cost effective to protect that feature.

If recognition of products, services or name is a reason for exploiting (e.g., license, franchise or bundling), then intellectual property protection may not need to cover competitive features of products or services. However, successful exploitation for this reason should include several types of intellectual assets that can be bundled in one or more identified areas of technology and/or a branding strategy that creates an indelible impression in the marketplace. In order to effectively bundle intellectual property by technologies, a business should conduct an audit of its intellectual property. In order to create an indelible impression in the marketplace, a business should have a consistent and well-recognised appearance in the marketplace.

The establishment of an entrenched impression in the marketplace can only occur by a well established and growing patent portfolio supported by proper use of trade marks and service marks. Improper use weakens the impression. Creation of standard guidelines will help (1) to ensure technology developments are protected; (2) to ensure adoption of strong trade marks consistent in appearance (lettering, colour, font, et cetera), use of as adjective and use of notices, and (3) to mitigate improper combinations, abbreviations, spelling, or splitting of words.

⁶⁰⁰ WIPO On-line Magazine, Issue 1/2008, "IP and Business: Managing IP as a set of Business Assets" by Patrick Sullivan and Suzanne Harrison, See http://www.wipo.int/wipo_magazine/en/2008/01/article_0008.html (Last visited on 22 June 2010)

If establishing a bargaining position for transactions or disputes is a reason for exploitation then the quantity of intellectual property may be important. Protection of features of products or services may be less important. Bundling of intellectual property by technologies may be advantageous for creating a pool of intellectual property by technology.

WIPO published⁶⁰¹ the forty different business roles that intellectual property can play in an organisation, as identified by various industries in the ICM Gathering.⁶⁰² This serves as a good strategic guideline for businesses in developing an IP strategy.

Table 9: Business roles of intellectual property

Objective	Patents	Trade Marks	Know-How	Relationship
Conflict avoidance/resolution	<ul style="list-style-type: none"> Protection (exclude others) Design freedom Cross-licensing (defensive) Litigation bargaining power 	Protection (exclude others)	Protection (trade secret)	n/a
Revenue generation	<ul style="list-style-type: none"> Patents: sales, licenses, infringement policing Increased bargaining Power Market penetration Increased speed to market 	Sales, ;licenses, co-branding, infringement policing	Sales, ;licenses, joint ventures, strategic alliances, integration, increased speed to market	
Cost reduction	<ul style="list-style-type: none"> Tax donation Litigation avoidance Access to third party technology Improved knowledge transfer 	Litigation avoidance Access to technology of others	Litigation avoidance Improved technology transfer	Reduces marketing costs

⁶⁰¹ WIPO Magazine (on-line) 2008/1, see http://www.wipo.int/wipo_magazine/en/2008/01/article_0008.html (Last visited on 24 June 2010)

⁶⁰² In late 1994, Patrick Sullivan and Suzanne Harrison began contacting all the companies who were actively trying to manage their intangible assets. In January 1995, representatives from seven of these companies assembled for a meeting to share what their IC efforts entailed. At that first meeting, the group defined intellectual capital as “knowledge that can be converted to value.” They also determined that IC has two main components: human capital (HC—ideas we have in our heads) and intellectual assets (IA—ideas that have been codified in some manner). Within intellectual assets, there is a subset of ideas that can be legally protected, called intellectual property (IP). The original group of seven companies that met in January 1995 has now grown to over 30 companies that meet three times a year to create, define, and benchmark best practices in the emerging area of ICM. This group is collectively known as the ICM Gathering.

Strategic position	<ul style="list-style-type: none"> • Reputation / image • Competitive blocking • Barrier to competition • Consumer/supplier control • Optimisation of core technology 	<ul style="list-style-type: none"> • Name recognition • Consumer loyalty • Barrier to competition • Joint Venture • Strategic alliance 	<ul style="list-style-type: none"> • Reputation/image • Barrier to entry 	<ul style="list-style-type: none"> • Reputation/image • Consumer loyalty • Barrier to entry
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Securing patent protection, traditionally had and still has, the objective of preventing competitors from freely copying inventions that provide a competitive advantage. This in itself in modern society only reflects one side of the coin. In addition to this a business should be free to sell products and services, operate plants, license technology and so forth, in selected markets. This of course is fundamental to financial success and as such an intellectual property strategy needs to anticipate the business needs and risks and in addition, deliver a defined 'freedom to operate'⁶⁰³ strategy.

A freedom to operate analyses will include the following aspects:⁶⁰⁴

- Detailed understanding of products and/or technology that require defensive patent coverage.
- Inventory of patents relevant to these products/technology.
- Measure of commercial/technical value of these patents.
- A landscape of competitor products, technology and patents that would be the subject of counter assertion.
- Inventory of own patents that would probably impact on products/technology of competitors.
- Determine the aggressiveness of competitors with regards to enforcing patent rights.

In the context of third party IP risk, IP as a currency is important as it may be used to fend off infringement threats or involve the grant of licenses in exchange for monetary settlement.⁶⁰⁵

⁶⁰³ Freedom to operate refers to the ability to operate ones business without the risk of infringing on a third party's patents

⁶⁰⁴Managing IP Magazine, July/August 2006, "Why IP Currency is the route to profit expansion" by P Spours and D McCurdy, PP 58-59 to be viewed at http://www.thinkfire.com/wp-content/uploads/2009/03/mip_julaug06_currency.pdf (Last visited on 25 June 2010)

⁶⁰⁵ As an example see the presentation by ThinkFire "IP Currency – a new approach to monetising IP" by Peter Spours, to be viewed here: <http://www.thinkfire.com/wp-content/uploads/2009/03/frankfurtconference.pdf> (Last visited on 24 June 2010)

Intellectual property as a currency implies that the main goal in obtaining and developing intellectual property rights is not for the sake of securing intellectual property or to enforce it through litigation, or even sell it, but to use intellectual property as stock or money in business transactions to enter new markets or product ranges.

It may also be used as an investment in exchange for shares, or even cross-licensing with competitors, where competitor patents pose a threat to a business commercialisation or use of technology.⁶⁰⁶

In this strategy patents are filed and maintained with the aim as a trading currency and never the intent to actually exploit the underlying invention in any manner other than a 'currency' trade. If one looks at recent patent statistics⁶⁰⁷ it shows an average growth of 22 per cent over the last 10 years, with the largest growth during 2005. Patenting activities by universities have also increased and covered 4 per cent of all total applications filed. This is certainly an indication of increase in strategy of intellectual property as a currency.

Patent filings and grants in certain industries, such as that of information technology, are extremely high with the large corporations having the ability just accumulating patents with no declaration of intent to use these or exploit them in any form. In this context there are views⁶⁰⁸ that intellectual property as a currency may be perceived by some as nothing other than a form of abuse of patent rights, in that this strategy underpins the essence of making things more expensive, if not unaffordable; it prevents scientists from advancing technology; it unfairly prejudices small businesses who cannot afford the license fee, nor a broad patent portfolio as a counterfeit, and it restrains civil liberties and individual freedom.

In the financing industry,⁶⁰⁹ intellectual property currency is seen as a new 'currency' to recoup unpaid loans in foreclosure of bankrupt businesses and to place the intellectual property in the hands of operating companies that can actually exploit it through financial intellectual property brokerage firms.⁶¹⁰

⁶⁰⁶ For example the well published ASML, Zeiss and Canon Cross-License for their respective Lithography Equipment Patent Portfolios signed in 2007,

⁶⁰⁷ OECD Compendium of patent statistics 2008 – which shows recent trends on patenting in specific sectors see <http://www.oecd.org/dataoecd/5/19/37569377.pdf> (Last visited on 16 July 2010)

⁶⁰⁸ Subversion of liberal order for a nationalistic cause? Intellectual property rights and the Chinese state legitimisation claim in a knowledge economy (Paper to be presented at the 2004 ISA Convention Huong Nguyen PhD candidate School of International Service American University) to be viewed at http://www.allacademic.com/meta/p_mla_apa_research_citation/0/7/3/4/8/pages73480/p73480-1.php (Last visited on 16 July 2010)

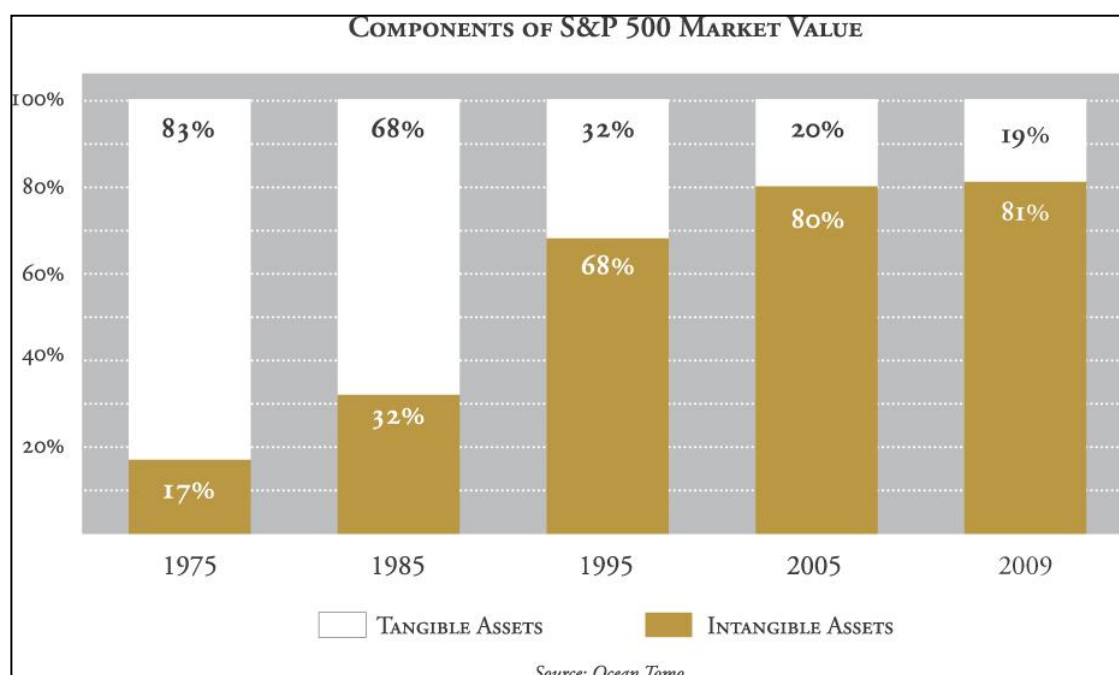
⁶⁰⁹ Business Journal, 21 Nov 2008, "Bank sell patents to recover losses at foreclosed companies" – by William Haynes see http://cooleykronish.admin.hubbardone.com/files/tbl_s5SiteRepository/FileUpload21/1539/Press%20Mention%20-%20Nov%2008%20-%20Hale%20-%20SVSJ%20BizJournal.pdf (Last visited on 16 July 2010)

⁶¹⁰ See Chapter V – IP Business models

Thus, intellectual property currency is a valuable commercial lever, but one that reaches its full potential when aligned with core business drivers and used as a negotiating tool. A large patent portfolio needs active exploitation to fulfill its commercial potential. In most cases defense is not enough. Corporate strategy in most companies revolves around profit growth from new ventures, relationships, markets and products.

Within the last quarter century, the market value of the S&P 500 companies have deviated greatly from their book value. This 'value gap' indicates that physical and financial accountable assets reflected on a company's balance sheet, comprises less than 20 per cent of the true value of the average firm. Ocean Tomo's⁶¹¹ research shows that a significant portion of this intangible value is represented by patented technology. See Figure 14 below.

Figure 14: Illustration of material impact of IP on the valuation of publicly traded companies.



Companies such as Xerox, Microsoft, Lucent, IBM,⁶¹² Dell, Dow Chemical and Gillette are managing and deploying their patents not just as legal instruments, but also as powerful financial assets and competitive weapons. Some of the benefits of patents are their ability to

⁶¹¹ See Ocean Tomo report on <http://www.oceantomo.com/productsandservices/investments/intangible-market-value> (Last visited on 16 July 2010) (Established in 2003, Ocean Tomo, LLC, is the leading Intellectual Capital Merchant Banc™ firm. The company provides financial products and services related to Intellectual Property, including expert testimony, valuation, research, ratings, investments, risk management and transactions. Ocean Tomo assists clients – corporations, law firms, governments and institutional investors – in realizing Intellectual Capital Equity® value broadly defined).

⁶¹² "Companies leading the way in leveraging their IP have found ways to boost revenues, drive capital formation, and reduce risk. IBM, for example, generates in excess of \$1 billion annually from IP licensing revenues, all without making a single product. " from "IP the New Currency – newsflash from Carltonfields Attorneys at law" to be viewed at <http://www.google.co.za/url?sa=t&source=web&cd=1&ved=0CBQQFjAA&url=http%3A%2F%2Fwww.iphandbook.org%2Fforum%2Fposts%2FdownloadAttach%2F262.page&ei=2ipCTPrIBsr4nAftqciDw&usg=AFQjCNHxooouPx3XJIXaqnvvggN2SXc0pFSQ> (Last visited on 22 June 2010)

stake out and defend a proprietary market advantage, help build category-leading products, anticipate market and technology shifts, and improve financial performance.

The strategic management and use of patents can significantly enhance a company's success by establishing a proprietary market advantage, by improving financial performance, and by enhancing overall competitiveness. Companies can realise a big advantage by treating their patent portfolios as a strategic asset.

2 Developing an intellectual property strategy

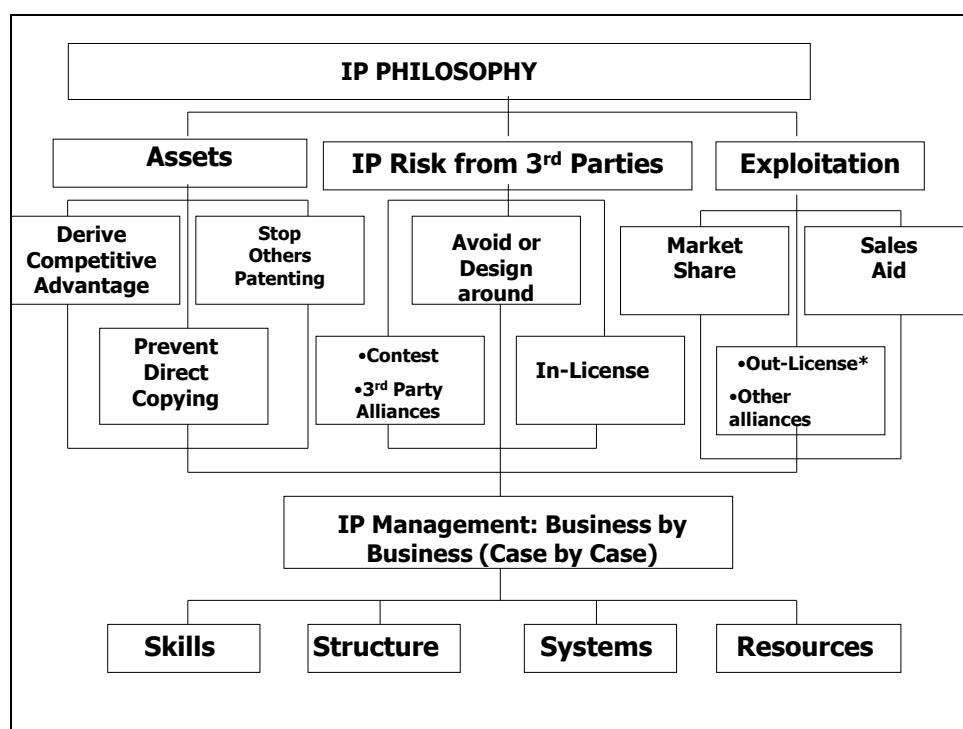
No strategy is effective without an underlying philosophy as basis thereof. The decision to protect an intellectual property item needs to take into consideration what type of protection is most effective, considering the countries where its business is to be exploited and the protection mechanisms offered for intellectual property in these countries, including the complexities of technology licensing, protection and enforcement of intellectual property rights. A business needs to be clear on how the item fits into the business's overall strategic plans, the market life of the item and whether there are other items under development that are of strategic importance to the organisation and that relate to, or could be affected by, the protection of choice.

Below, in Figure 15, is an illustration of the 4 pillars the IP philosophy⁶¹³ should include.

The philosophy aims at defining the main areas (pillars) to focus on in IP strategy development, i.e. assets, third party IP risk, exploitation and management. Once a strategy is established, appropriate methods of protection for products and services can be selected from among patents, trade marks, copyright or trade secret protection following the consideration of the risks and advantages of the jurisdiction or territory where protection is sought.

⁶¹³ Adapted from presentation by Bawden & Associates of 2005 to Sasol Chemie IP strategy work-shop

Figure 15: Components of IP Philosophy



It is essential to ensure the appropriate management of IP is established, which includes the appointment of a technical manager who is accountable for the management of a business IP assets of the company; sufficient, professionally qualified internal IP personnel who need to cost-effectively leverage external resources as required to actively advise the accountable manager; employees to be sensitised and trained to understand and perform their duties in alignment with the IP philosophy of the business; and the necessary support systems, procedures and guidelines to appropriately and effectively manage the other 3 pillars of the philosophy.

An intellectual property strategy is in essence a plan or method to use this asset to achieve business objectives. By linking intellectual property processes and management to business objectives via an intellectual property strategy, organisations can ensure that intellectual property has a purpose, thereby reducing the competitive risks associated with ad-hoc intellectual property development. The end result of a properly formulated and executed intellectual property strategy is that the intellectual property will 'lead the business'. In other words, the intellectual property will be in place for use when the business needs it, rather than requiring intellectual property to catch up.

The most important aspect of developing an intellectual property strategy is the communication between business, legal, technical, and marketing departments within an

organisation. Without this communication, it is difficult to align the development of the intellectual property portfolio with corporate business objectives of the organisation, creating the risk of *ad-hoc* intellectual property development.

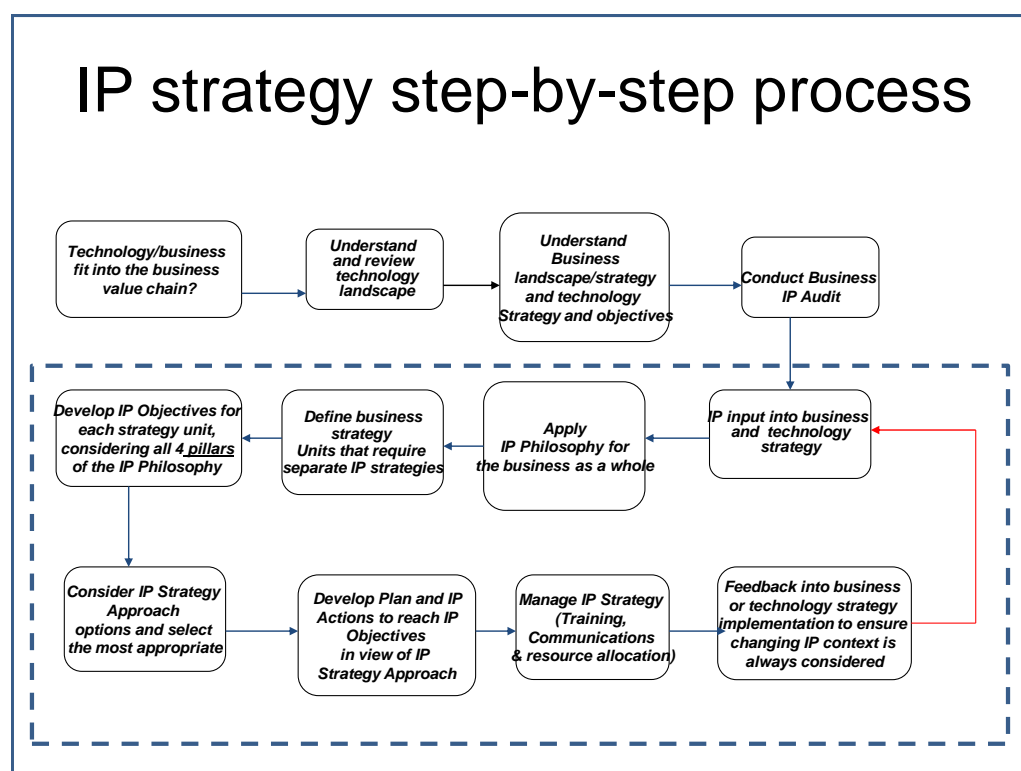
Once this communication is established, there are some critical steps to developing and implementing an intellectual property strategy.

Another important aspect to note about this is that over the life cycle of IP items, IP strategy development and implementation need to remain a dynamic, reiterative process.

Such a process needs to take into consideration current business and technology strategy that is to be continuously revisited, to ensure that the intellectual property strategy is aligned with business and technology strategies and that the exploitation strategy serves the primary objective of commercial value and exploitation.

A step-by-step process of the IP strategy development process is provided in Figure⁶¹⁴ 16 below and discussed in more detail in paragraphs 3.1 to 3.6.

Figure 16: IP strategy development process



⁶¹⁴ Author developed this for Sasol Limited during 2006 and adapted this for PhD thesis in June 2010

2.1 Identify business objectives considering the full technology value chain or product range(s)

Before intellectual property can be used to achieve business objectives, the business goals must be identified, preferably derived from senior level executives. Examples include:

- Develop a strong intellectual property position around the full value chain.
- Develop intellectual property around integration technology, new products, processes and development opportunities not currently being pursued.
- Address competitors developing combination products and technology profiles.

2.2 Audit and evaluate the current intellectual property portfolio of the business as it maps to the business objectives (Internal IP landscape)

Once a business understands its business objectives with respect to its technology and product value chain, the current intellectual property of the business should be mapped to the defined business, and if applicable, technology objectives.

This process allows organisations to understand the strengths and weaknesses of their intellectual property position and grasp where the opportunities for intellectual property exist (SWOT analyses). It includes considering the full intellectual property value chain.

2.3 Review the competitive intellectual property position with regard to the integrated value chain as well as the independent technology blocks (External IP landscape)

It is critical to evaluate the competitor intellectual property profile in the relevant technology space. Typically consider the following aspects:

- Patent portfolio activity by competitors in technology space, including scope of patent claims
- Jurisdictions of competitor patenting activity
- Size of competitor company
- Specific trends in technology profiles
- Competitor aggressiveness with regard to patent and trade mark enforcement.

In reviewing the competitor intellectual property activity, business transactions using patent information tools such as Aureka from Thomson Reuters, can be very helpful. Typically it can identify companies' technology exchange and patents during transactions such as divestitures, acquisitions and mergers. An example to illustrate this is the merger of 2 Japanese banks, UJF Bank and the Bank of Tokyo. It was a US\$ 29 billion deal to become a world leader bank.

From Aureka it could be established that between 2000 and 2005, 3 banks dominated the patent environment; Bank of Tokyo (217 applications); UFJ Bank (118 applications) and Laurel Bank Machines (109 applications), but that the patent portfolio of UFJ and Tokyo widely overlapped with complementary assets and that the overlap was particularly within the strategic areas of business of the new merged bank.⁶¹⁵

2.4 Develop an intellectual property strategy aligned with business and technology strategies

Once the business objectives, current proprietary and competitive intellectual property positions are understood, an informed, proactive intellectual property strategy can be developed to achieve the identified business objectives of the company.

It is advisable to decide on an approach for the relevant strategy, i.e. aggressive, proactive or passive approach. These approaches, based on the 4-pillar philosophy for an IP strategy would typically include:

2.4.1 Aggressive Approach

2.4.1.1 IP assets

- Invention disclosure (ID) opportunities and understanding of the IP landscape
- Full IP audit and idea generations session – identifying gaps in IP portfolio and actively filing these inventions
- Defined philosophy with regard to IP vehicle selection – patent portfolio development, trade secret or publication
- Trade mark protection for key products and business
- Domain protection for key trade marks, business names and territories of major trade (interest).

2.4.1.2 IP management

- High resource allocation
- Broad protection of IP assets – country wise and IP type.

⁶¹⁵ Intellectual Asset Management Magazine, June/July 2008 "How serious gaming can solve the patenting paradox" by Arnaud Gasnier, pp 9-13

2.4.1.3 IP risk

- Complete patent and trade mark and domain searching of patent literature.
- Full assessment of risk pertaining to third party IP landscape.
- Prior art creation.

2.4.1.4 IP exploitation

- Aggressive policing and enforcement of IP Rights
- Licensing.

2.4.2 Proactive approach

2.4.2.1 IP assets

- IP portfolio development through IP alliances
- IP portfolio development through own R&D efforts
- Average protection of IP assets – country wise and IP type.

2.4.2.2 IP management

- Average resource allocation
- More focus on cost effectiveness in securing Freedom to Operate – publish/trade secrets rather than aggressive patenting.

2.4.2.3 IP risk

- Patent searching and IP landscape monitoring generally more project-based driven.

2.4.2.4 IP exploitation

- Police and enforce IP Rights where a clear business case exists.

2.4.3 Passive approach

2.4.3.1 IP assets

- No active IP portfolio development
- Only really valuable IP pursued and protected in selected countries
- More focus on publication efforts.

2.4.3.2 IP management

- Low resource allocation for patent filing.

2.4.3.3 IP risk

- IP landscape review or patent/trade mark searching on ad hoc/request basis.

2.4.3.4 IP exploitation

- Only ad hoc activity.

2.5 Select the appropriate means for intellectual property protection

Each vehicle or method of protection protects different aspects of a product, service or technology. An effective strategy may even include licensing, litigation or a combination of both as part of the strategy.

The following features of each vehicle or method of protection should be compared in selecting the most appropriate tool consistent with the business strategy:

- Scope of protection afforded by the method/vehicle
- Time to obtain protection
- Cost of protection (considering uniqueness of technology, value to a competitor)
- Length of protection and the stage of the intellectual property items in the portfolio
- Requirements for enforcement and litigation potential (considering the strength of the intellectual property item, i.e. patent, design, copyright or trade mark)
- Countries where protection is sought: patents are expensive in the more countries they are filed. With (mostly) limited budgets, the strategic country list needs to be devised in such a manner that it maximises the return on patent investment.⁶¹⁶ Of importance here is application of patents in countries where innovation of the specific industry sector is high and the likelihood for exploitation, or trading of intellectual property is high. Alternatively, the countries where business operations (manufacture or sale of products) are active, either to exclude competitors or to provide a registered intellectual property protection base for potential licensing of technology in a particular country. It is essential to understand the enforcement strengths of these jurisdictions.⁶¹⁷
- Country restrictions or exceptions regarding the above listed items (country legal/ intellectual property due diligence).

In addressing the appropriate means of protection relevant jurisdictions should feature in the strategy.

⁶¹⁶ Les Nouvelles, December 2006, "The Global Patent Value Matrix: Making Global Patent Strategy Decisions", (PP253-260) by W Barrett specifically advises to consider the relative value of the invention and then to develop a global Patent Country Strategy matrix considering Cost in Each Country, Market potential in each country and enforcement risks in each country. The matrix can be used to select a tailor-made set of countries for current and future innovation lifecycles and to evaluate selected countries in view of additional strategic considerations as these may change or evolve.

⁶¹⁷ Reports such as the Global IP Index of Taylor Wessing and the OECD Patent Statistic reports assist with identifying technology sectors for innovation and other forms of IP protection per country as well as potential high risk countries

In the most recent Global Intellectual Property Index⁶¹⁸ (GIPI),⁶¹⁹ based on an innovative analysis of surveys of senior industry figures globally and an array of published empirical data, the index provides an assessment of the best and worst jurisdictions to obtain, exploit, enforce and attack particular types of intellectual property.

Out of the top 24 countries UK⁶²⁰ was ranked first, Germany ranked second,⁶²¹ US⁶²² ranked third,⁶²³ Japan ranked eleventh⁶²⁴ and China⁶²⁵ ranked twenty-fourth.

Jurisdictional analyses by GIPI also categorised the twenty-four major jurisdictions in accordance with sensitivity and predictability, rating competitiveness, enforcement, and stability of intellectual property legal systems. This may be a reference tool for investors when selecting jurisdictions for intellectual property exploitation.

2.6 Implement and execute the intellectual property strategy

Executing an intellectual property strategy can be a challenging task. The following guidelines will assist in the implementation process:

- Ensure that senior management/executives buy in: both the business objectives and the intellectual property strategy needed to be developed with executive input.
- Ensure that operational personnel, especially in plants and other 'remote from office' locations are sensitive towards intellectual property protection.
- It is critical to develop an intellectual property strategy that is not only executable with the resources available to the organisation, but that also has execution schedule with designated action items and accountabilities.

⁶¹⁸ The Global IP Index presents a statistical comparison of IP protection and enforcement in 24 of the world's leading economies, rating each jurisdiction for protecting and enforcing patents, trade marks and copyrights.

⁶¹⁹ Global Intellectual Property Index by TaylorWessing, The Report, May 2009 to be found at http://www.zyen.com/Activities/On-line_surveys/GIPI.pdf (Last visited on 24 June 2010)

⁶²⁰ Viewed favourably by most respondents, particularly for obtaining and exploiting trade marks. Strong overall, except for copyrights where it is rated behind the USA.

⁶²¹ Up one position since the May 2008 GIPI ranking report

⁶²² Viewed favourably by most with a particularly strong rating for enforcing and exploiting copyrights. In 6th place for trade marks and second behind the UK for patents.

⁶²³ As opposed to the second ranking position of the 2008 GIPI report.

⁶²⁴ The same position as per GIPI report of 2008

⁶²⁵ China has made significant efforts over the past few years to improve its IP systems, including with the set up of specialist IP courts (the third civil division) and substantive decisions sometimes within two month. However, red tape continues, e.g. requiring all documentary evidence to be legalized and notarized. In terms of perception, at least so far these efforts do not appear to have gained recognition as China is two positions down from 22nd in the GIPI 2008 report to 24th in the GIPI 2009 report.

- Intellectual property strategies should be proactively updated on a routine basis. There may be new competitive information or a change in business objectives that should redirect the efforts of the intellectual property strategy.

Organisations with aggressive intellectual property management are able to realise a sustainable competitive advantage. They monetize their intellectual property through product use, competitive blocking, licensing, joint ventures, joint development, merger and acquisitions and spin-offs.

Without an accurate picture of the value of intellectual property, usefulness is limited, strategic decisions clouded and valuable resources are wasted. It is crucial to put the correct mechanisms in place to view and use intellectual property in alignment with corporate strategy and as intellectual property currency for wider business transactions.⁶²⁶ Only then will the intellectual property portfolio be playing its true role in defending the business and creating wealth by offsetting cash or stock demands and generating profit.

3 Technology licensing as option for intellectual property exploitation

3.1 General

As identified above, in applying an intellectual property exploitation strategy, one way may be to consider the licensing thereof to third parties. Licensing is often viewed as a compromise as it requires the intellectual property owner to share its intellectual property. It can however lead to significant market expansion and generate new sources of revenue⁶²⁷ for the intellectual property owner through such a business relationship. It may well be that the licensor is not active in a certain territory or that certain segments of the market cannot be covered by the licensor. Licensing disseminates the technology to a broader market and may hence have a positive effect on the licensor's activities, cross-licencing may be important as well by creating opportunities and may have a blocking effect on other competitors.

⁶²⁶ Intellectual Asset Management On-line Magazine, "Licensing in the Board Room – 2006" Supplement, pp 44-84, "Linking Licensing with Corporate strategy", Peter Spours, , see <http://www.thinkfire.com/wp-content/uploads/2009/03/linkinglicensingwithcorpstrategy.pdf> (Last visited on 24 June 2010)

⁶²⁷ Peter F. Drucker, *The Changed World Economy*, Reprinted by permission from *Foreign Affairs*, Spring 1986,

WIPO brought out a useful guideline entitled 'Successful Technology Licensing' in 2004⁶²⁸ which includes aspects of preparation and actual conducting of negotiations, key licensing terms and management and use of the signed agreement.

There are various types of licences of which the main types are set out below.

- An **exclusive licence** is a licence in terms of which the licensor grants the licensee exclusive rights to the intellectual property being licensed in a specified territory, be it geographic, use or customer group. In addition, it agrees not to grant any other licences and not to operate the licensed technology itself in the agreed territory.
- A **sole licence** is a licence that is similar to an exclusive licence except that the owner of the intellectual property grants a licence in a specified territory (with an undertaking not to grant any other licences in that area) but retains the right to use the intellectual property itself in that territory.
- A **non-exclusive** licence is a licence in terms of which the licensor retains the right to license other third parties and to simultaneously use the intellectual property rights licensed and may operate the intellectual property itself.
- A **cross-licence** is a license in terms of which parties grant each other a patent license to each others patents or other intellectual property as a result of negotiations between the parties due to business blocking by patents owned by competitors or other third parties.
- **Compulsory licences** is a licence granted in terms of patent legislation available in some jurisdictions whereby authority can grant a licence to exercise the invention as claimed to an alleged infringer under certain circumstances of abuse of patent rights by the patentee, and as such allow a non-patentee to practice a patent without authorisation of a patentee.

An important aspect to bear in mind with technology licensing, is that it is seldom an independent transaction. Technology licensing mostly occurs in the context of a business relationship in which other agreements are often important.

⁶²⁸ See WIPO on-line magazine at http://www.wipo.int/ip-development/en/strategies/pdf/publication_903.pdf (Last visited on 24 July 2010)

3.2 Strategic drivers for technology licensing

Technology licensing offers financial and strategic opportunities.⁶²⁹

- The monetary dimension – revenue creation (monopoly sharing to generate value): Licensing revenues may account for a substantial portion of overall revenues from commercialising a new technology.
- Product-oriented licensing: deals are primarily directed at supporting a company's product strategies.
- Patent cross-licensing in pure form, i.e. technology partners intellectual property portfolio shows certain overlap or complementary intellectual property that can enhance the competitive advantage resulting in the grant of a patent and/or technology cross license either with intellectual property as sole currency, or royalty bearing on the value difference in the intellectual property portfolio. In this context care should be taken of possible anti-competitive behaviour and any such licences need to be verified against potential application of anti-trust legislation.

The technology-oriented strategic drivers are primarily directed at strengthening a companies' technological position. They can however also serve the purpose of minimising risk. For example in the case of 'guaranteeing freedom to operate' wherein agreements between competitors in general lead to an intellectual property alliance or collaboration on intellectual property, in exchange for a specific type of cross-licensing⁶³⁰ agreements in which intellectual property rights are used as bargaining chips, usually without any transfer of technology. Here, the main driver of technology licensing is avoiding potential patent infringement lawsuits which would prevent a business from further developing its technologies and commercialising its products.

In many cases, intellectual property may be the only possibility to gain access to another companies' technology portfolio. Due to shorter product and technology life cycles and growing technology convergence, the acquisition of external technology does not constitute merely an option but a requirement for many companies. Thus, out-licensing may be primarily directed at the acquisition of external technology, which may be realised in bi-directional technology transfers based on cross-licensing agreements.

⁶²⁹ The Drivers of Technology Licensing: An Industry Comparison, UNIVERSITY OF CALIFORNIA, BERKELEY VOL. 49, NO. 4 SUMMER 2007 by Ulrich Lichtenthaler

⁶³⁰ Intellectual Property, Valuation, and Licensing Testimony of Prof. David J. Teece FTC/DOJ Hearings, Berkeley, CA, February 26, 2002 to be found at <http://www.ftc.gov/opp/intellect/020226davidjteece.pdf> (Last visited on 24 June 2010)

A company can guarantee its technological leadership by licensing⁶³¹ out technology. Although this motive might appear counterintuitive, it can be achieved in 2 ways. Firstly, if a powerful and technologically leading company licenses its technology in a particular field to its major competitors, these companies may focus their inventive activities on other areas, leaving the particular technology field to the company.

Secondly, a technologically leading company may license a specific technology to its competitors, whereas the company itself concentrates on another technology, which represents a different market segment or likely is superior in the long term. Thirdly, licensing can be a monopoly sharing to generate value and diversify revenue streams.

IBM for example in 2007 received 3,125 US patents from the USPTO. This is the fifteenth consecutive year that IBM has received more US patents than any other company in the world. In addition to delivering these innovations through its products and services, IBM maintains⁶³² an active patent and technology licensing programme to out-license its technology. Another example is Procter & Gamble (P&G) that licenses any patent if, after 5 years from issuance, it's not being used in a product or it has been used in a product for 3 years.⁶³³

3.3 Open innovation as opposed to licensing

Open innovation⁶³⁴ is growing in popularity. Not all good ideas are developed within the own company, and not all ideas should necessarily be further developed within the business' boundaries. Table 10 below further illustrates the differences between open and closed innovation principles.⁶³⁵

⁶³¹ TechSearch is an Irish developed website that provides a number of interactive tools to help businesses benefit from the opportunities available through the Technology Transfer process and covers licensing opportunities in UK, USA, and some other jurisdictions. This can be found at <http://www.enterprise-ireland.com/TechSearch/TechSearch+Toolkit/Technology+Licensing+Links.htm> (Last visited on 24 June 2010)

⁶³² See the IBM website at <http://www.ibm.com/ibm/licensing/index.shtml> (Last visited on 24 June 2010)

⁶³³ See the PROCTER & GAMBLE (P&G) website at <http://pg.t2h.yet2.com/t2h/page/searchhome> (Last visited on 24 June 2010)

⁶³⁴ The central idea behind open innovation is that in a world of widely distributed knowledge, companies cannot afford to rely entirely on their own research, but should instead buy or license processes or inventions (e.g. patents) from other companies

⁶³⁵ Chesbrough, H. (2003), "*Open Innovation: The New Imperative for Creating and Profiting from Technology*", Harvard Business School Press.

Table 10: Comparative analyses: Open vs closed innovation principles

Closed innovation principles	Open innovation principles
The smart people in the field work for us.	Not all the smart people in the field work for us. We need to work with smart people inside and outside the company.
To profit from R&D, we must discover it, develop it, and ship it ourselves.	External R&D can create significant value: internal R&D is needed to claim some portion of that value.
If we discover it ourselves, we will get it to the market first.	We don't have to originate the research to profit from it.
The company that gets an innovation to the market first will win.	Building a better business model is better than getting to the market first.
If we create the most and the best ideas in the industry, we will win.	If we make the best use of internal and external ideas, we will win.
We should control our intellectual property, so that our competitors don't profit from our ideas.	We should profit from others' use of our intellectual property, and we should buy others' intellectual property whenever it advances our business model.

For open innovation to work, it must be supported by intellectual property. Without this the competitive advantage can be short-lived and risk of commoditisation is high. It will require a proper contract to govern and manage the relationship between the parties to the open innovation partnership. A deal strategy framework helps to develop a working model of a partnership with regards to pre-existing and jointly developed intellectual property during the partnership and at the end thereof.⁶³⁶

Many successful business models⁶³⁷ have emerged recently that embrace the benefits of open innovation. These business models are all based on the fact that there is a burgeoning market for intellectual property and most companies are unable to fully monetize their intellectual property assets on their own.

Some companies for example extract value from their portfolios through licensing, even to competitors; others supplement its internal intellectual property with external intellectual property. Open innovation offers a combination of these.⁶³⁸

⁶³⁶ Intellectual Asset Management June/July 2008, "Managing IP in open innovation partnerships" by J Cronin and K Shore, pp 17 - 23

⁶³⁷ See Chapter V

⁶³⁸ Henry W Chesbrough, Open Innovation: The New Imperative for Creating and Profiting from Technology XX, XXIV, 56 (Harvard Business Scholl Press 2006)

In certain industries such as the computer industry however, due to consumer objections, the progress of such collaborations have been derailed.⁶³⁹

In the freedom to collaborate and license ones technology and intellectual property, there is the realisation of a legal framework within certain jurisdictions, as well as international intellectual property agreements that affect such freedom.

As such for any foreign jurisdiction transactions, it is important to investigate not only the prospective licensee but the licensee's country as well. The government of the host country often must approve the licensing agreement⁶⁴⁰ before it goes into effect.

Some governments prohibit royalty payments that exceed a certain rate or contractual provisions barring the licensee from exporting products manufactured using the licensed technology to third countries.

The prospective licensor must always take into account the following aspects in the host countries:

- Foreign patent, trade mark, and copyright laws
- Exchange controls
- Product liability laws
- Possible counter trading or barter requirements
- Antitrust and tax laws
- Government attitudes toward repatriation of royalties and dividends.

3.4 Standard setting

In the context of intellectual property exploitation it is necessary to mention standard-setting as this raises many difficult patent disclosure, licensing, competition and antitrust issues.⁶⁴¹

In setting a standard⁶⁴² it is not uncommon that the best technology for a technical standard is a proprietary technology, protected by one or more patents.

⁶³⁹ Les Nouvelles, GPL Version 3: Two Steps Back for Open Source Licensing, Interoperability, and Open Innovation FM Buono and M Sieverding, June 2007, PP405

⁶⁴⁰ See Chapter II

⁶⁴¹ See for example the Rambus (Rambus, Inc. v. Infineon Techs. AG, Fed. Cir.2003) case where the (US) Federal Trade Commission unanimously decided that computer technology developer Rambus, Inc. engaged in a course of deceptive conduct that distorted a critical standard-setting process, resulting in an unlawful monopoly in the markets for four computer memory technologies relating to dynamic random access memory and various other cases that can be viewed here http://www.abanet.org/antitrust/committees/intell_property/june4.html (Last visited on 24 June 2010)

⁶⁴² The International Organization for Standardization (ISO) defines a formal standard as "a document, established by consensus that provides rules, guidelines or characteristics for activities or their results." A standard, therefore, is generally a set of characteristics or qualities that describes features of a product, process, service, interface or material. A standard may

The development of standards more and more frequently anticipates technology rather than following it, leading to conflicts between standards and patents. If patented technology is incorporated into a standard, i.e. in order to comply with a given standard or technical regulation, a company may have to (or choose to) use one or more patented technologies without the patent holder's agreement to share its patent rights. In such event the patent holder may be the only entity able to comply with the standard.

Companies wishing to participate in standard setting need to take note of the many formal international bodies⁶⁴³ that deal with these aspects and develop appropriate policies to implement these.

Care should be taken with regards to national jurisdictions applicable law and appropriate case law that may consider certain behaviours on granting of intellectual property licences or intellectual property contracts as anti-competitive.

3.5 Alternatives to licensing

As an alternative to licensing, another option for monetizing technology-related intellectual property is a spin-off or business sale, in which intellectual property and associated key people become the basis for creating a new and separate entity. This may be an option when your business has inventions that do not fit with the strategic direction of your business. One of the many important factors in a successful spin-off is the correlation between the patents and business. You should be able to carve out pieces of your intellectual property portfolio without disrupting other patents and business. A related monetization option is a joint venture or other partnering opportunity that is based on the leverage potential of the inventions, copyrights and brands.

Intellectual property securitisations and collateralisations (i.e., financing backed by a security interest or pledge of the borrower's patents, copyrights, trade marks, know-how or other intellectual property) have also provided many companies with opportunities to leverage its intellectual property assets and raise capital. For example, it is well known that Coca-Cola's market capitalisation has been largely based on the value of its well-known trade marks and well kept trade secret on its syrup composition.

also describe how properties are measured, the composition of a chemical, the properties of an interface, or performance criteria against which a product or process can be measured

⁶⁴³ For example IEEE to be found at <http://standards.ieee.org/board/pat/guide.html> and the SSO to be found here <http://www.consortiuminfo.org/ipr/> or OASIS that can be found here <http://www.oasis-open.org/who/intellectualproperty.php> (Last visited on 24 June 2010)

Patent auctions are a great conduit for marketing, selling and/or acquiring intellectual property, as well as monitoring the white space and/or competition. The event brings together a large number of buyers and sellers, and serves as a unique setting to meet, network and learn which patents are available in today's market.

Cost reduction is another form of intellectual property monetization. A thorough analysis of an intellectual property portfolio will often reveal patents that are basically worthless because of advances in technology. IBM does a tremendous job of eliminating unnecessary patents from its portfolio, thus reducing the maintenance fees and costs associated therewith, even as it continues to be a leader in generating new patents. Similarly, you can donate intellectual property to universities and research institutions as a cost reduction strategy. This provides a tax deduction in certain jurisdictions equivalent to the fair market value of your intellectual property and can enhance your business's reputation. However changes in jurisdictional tax laws and audits have made intellectual property tax donations less lucrative as they were in the more recent past.

4 Impact of the TRIPS Agreement and other legislation in specific jurisdictions on technology licensing

4.1 TRIPS and technology transfer

Developing countries, in particular, see technology transfer as part of the bargain in which they have agreed to protect intellectual property rights. The TRIPS Agreement includes a number of provisions on this. For example, it requires developed countries' governments to provide incentives for their companies to transfer technology to least-developed countries⁶⁴⁴. Whether TRIPS had any real impact on technology transfer to least developed countries from developed countries, remains to be seen. In a study by the ICTSD⁶⁴⁵ which focused on public policies or programmes that developed countries undertake to encourage their enterprises or institutions to engage in technology transfer⁶⁴⁶ specifically, as it is easier to track due to the legal obligation in article 66.2 (TRIPS) on Governments.

⁶⁴⁴ Article 66(2) - which created a legal obligation for developed country members to encourage technology transfer to the less developed countries and it reads "Developed country members shall provide Incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least developed country members in order to enable them to create a sound and viable technological base."

⁶⁴⁵ "Does TRIPS Art. 66.2 Encourage Technology Transfer to LDCs? - An Analysis of Country Submissions to the TRIPS Council (1999-2007)" by By Suerie Moon of the International Centre for Trade and Sustainable Development (ICTSD) Giorgio Ruffolo Doctoral Research Fellow and Doctoral Candidate Center for International Development Kennedy School of Government, Harvard University http://www.unctad.org/en/docs/ips_pb20092_en.pdf (Last visited on 24 June 2010)

⁶⁴⁶ As opposed to market-based technology transfer that largely occurs through private channels

The conclusion of the study was *'The evidence arising from this review of country reports to the TRIPS Council does not paint a rosy picture of compliance with Article 66.2. Lack of definitional clarity regarding the terms "technology transfer" and "developed country" make it unclear which countries are obligated to do what. Furthermore, many high-income and/or OECD countries have never submitted a report, and among countries that did, submissions have largely been irregular. In addition, a majority of the programmes and policies reported do not specifically target LDCs,⁶⁴⁷ let alone LDC WTO members. Furthermore, a significant proportion of programmes for LDCs do not actually target technology transfer. The country reports do describe a range of programmes that certainly may benefit LDCs. However, they do not provide sufficiently detailed data to determine whether article 66.2 led to any additional incentives beyond business as usual foreign aid.'*

TRIPS addressed a second aspect of technology transfer *vis-a-vis* compulsory licensing. Member nations of the World Trade Organization have agreed that if they implement laws concerning compulsory licenses,⁶⁴⁸ such laws will be consistent with Article 31 of the TRIPS Agreement.⁶⁴⁹

Compulsory licensing can however only be done under a number of conditions aimed at protecting the legitimate interests of the right holder. For example: (unless there is an emergency) the person or company applying for a licence must have first attempted, unsuccessfully, to obtain a voluntary licence from the right holder on reasonable commercial terms, and adequate remuneration must be paid to the right holder.

The authorisation granted under compulsory licensing must meet certain requirements. In particular, it cannot be exclusive (it must be a non-exclusive and non-assignable license), and it must as a general rule be granted predominantly to supply the domestic market.

Most important to this Article is the provision made for improvement patents. The agreement states that a compulsory license may be granted in the context of an improvement patent 'where such use is authorised to permit the exploitation of a patent (the second patent) which cannot be exploited without infringing another patent (the first patent).'

⁶⁴⁷ Less Developed Countries

⁶⁴⁸ A compulsory license allows a non-patentee to practice a patent without authorization of a patentee.

⁶⁴⁹ http://www.wto.org/english/tratop_e/trips_e/t_agm3_e.htm (Last visited on 24 June 2010)

The following conditions apply:

- (i) The invention claimed in the second patent shall involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent
- (ii) The owner of the first patent shall be entitled to a cross-license on reasonable terms to use the invention claimed in the second patent
- (iii) The use authorised in respect of the first patent shall be non-assignable except with the assignment of the second patent.

It is noteworthy that while TRIPs does not mandate any of these provisions, many of the industrialised nations have followed the language of Article 31 and made provisions for the grant of compulsory patent licenses, both in the context of non use of a patent as well as the instance of an improvement patent. The United Kingdom, for example, allows for a compulsory license⁶⁵⁰ (as well as an accompanying cross license) when the improvement patent represents an 'important technical advance of considerable economic significance'. Other countries that do not have specific compulsory licensing provisions for improvement patents may nonetheless provide for it in other broadly written laws. Japan and Germany, for example, allow for compulsory patent licensing when permission to use the patent is in the 'public interest'.

There are two Articles in Part I of the original TRIPS Agreement that particularly concern the pharmaceutical industry.⁶⁵¹ Article 7 states that protection of intellectual property rights should be for the purpose of promoting innovation 'in a manner conducive to social and economic welfare, and to a balance of rights and obligations'.

However, Article 8 opens the door to the controversial issue of suspending intellectual property rights for the purpose of public health and socio-economic need. Furthermore, Part VI contained provisions that allowed flexible transition periods for lesser developed countries to come into compliance. Still, the original TRIPS agreement left many ambiguities as to when and how WTO members may circumvent intellectual property rights to gain access to essential drugs or whether holders of intellectual property rights could prevent subsequent import or export of their product once they have placed it in the market.⁶⁵²

⁶⁵⁰ See Chapter II, EU Compulsory Licenses, UK section

⁶⁵¹ Research Guide on TRIPS and Compulsory Licensing: Access to Innovative Pharmaceuticals for Least Developed Countries by Do Hyung Kim, Published February 2007 to be found at http://www.nyulawglobal.org/globalex/TRIPS_Compulsory_Licensing.htm (Last visited on 24 June 2010)

⁶⁵² Frederick M. Abbott, First Report (Final) to the Committee on International Trade Law of the International Law Association on the Subject of Parallel Importation, 1 J. Int'l Econ. L. 607 (1998). This practice is also known as "diversion" or "parallel trade."

TRIPS essentially did 3 things: (1) required WTO members to subject themselves to a minimum standard of protection for IPRs in order to avail themselves of the benefits of GATT (2) gave WTO jurisdiction for resolving disputes related to intellectual property, and (3) provided procedures and remedies for dispute resolution.

KEI (Knowledge Ecology International) investigated the application of compulsory licenses as a result of TRIPS and reports on a number of recent examples of the use of compulsory licenses, in both developed and developing economies. The examples cover a wide variety of technologies, legal mechanisms, and grounds for non-voluntary authorisations to use patents.⁶⁵³

4.2 Control of anti-competitive practices in contractual licenses

The TRIPS Agreement recognises that some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology.⁶⁵⁴ Member countries may adopt, consistently with the other provisions of the Agreement, appropriate measures to prevent or control practices in the licensing of intellectual property rights which are abusive and anti-competitive.⁶⁵⁵

The Agreement provides for a mechanism whereby a country seeking to take action against such practices involving the companies of another Member country can enter into consultations with that other Member, and exchange publicly available non-confidential information of relevance to the matter in question and of other information available to that Member, subject to domestic law and to the conclusion of mutually satisfactory agreements concerning the safeguarding of its confidentiality by the requesting Member.⁶⁵⁶ Similarly, a country whose companies are subject to such action in another Member can enter into consultations with that Member.⁶⁵⁷

Article 67 of the TRIPS Agreement requires developed country members to provide, on request and on mutually agreed terms and conditions, technical and financial co-operation in favour of developing and least-developed country members.

⁶⁵³ http://www.keionline.org/misc-docs/recent_cls_8mar07.pdf (Last visited on 24 June 2010)

⁶⁵⁴ Article 40 (1)

⁶⁵⁵ Article 40 (2)

⁶⁵⁶ Article 40 (3)

⁶⁵⁷ Article 40(4)

To ensure access to relevant information in this regard, developed country members have agreed to present annually to the TRIPS Council a description of their technical co-operation activities in the area of intellectual property. This information is circulated in the IP/C/W/-series of documents.⁶⁵⁸

4.3 Paris Convention

Article 5 of the Paris Convention for the Protection of Industrial Property states that members of the convention may provide for compulsory licensing of patents in order to prevent patent abuse. A good overview of this topic can be found in the Journal of Technology Law and Policy, Volume 9, December 2004, Issue 2.⁶⁵⁹

Specifically mentioned as an example of patent abuse, is the failure to work. In addition to other limitations, the Paris Convention gives a time period of non-use before compulsory licensing is allowed, and requires that a compulsory license be refused if the patentee 'justifies his inaction by legitimate reasons'. The Paris Convention does not have any specific provisions that relate to compulsory patent licensing, although denial of a license to an improver may be considered 'patent abuse'.

4.4 Jurisdictional matters

The 3 most important issues that arise for technology licensing are (1) exclusivity, (2) tie-ins and (3) grant backs.

The grant of an exclusive license has potential anti-competitive effects due to the fact that such licences effectively remove the possibility of the patentee also permitting other licenses to enter the field, without transferring the right to the licensee.

A requirement imposed on a licensee to purchase particular materials from a specified source as part of its obligations under an intellectual property license is known as a tie-in. There is a potential here for an intellectual property owner to use its rights to leverage those rights to obtain an 'unfair advantage'. By restricting the sources from which the licensee may choose competition is limited in supply of such (mostly) unpatented materials. On the other hand, a licensor has a legitimate interest to see that the licensee uses appropriate materials of an appropriate quality when producing the licensed product.

⁶⁵⁸ http://www.wto.org/english/tratop_e/TRIPS_e/intel9_e.htm

⁶⁵⁹ http://grove.ufl.edu/~techlaw/vol9/issue2/jackson.html#_edn4#_edn4 (Last visited on 24 June 2010)

Intellectual property agreements commonly include provisions relating to improvements. When such provisions require the licensee to grant any improvements it makes back to the licensor, these are referred to as grant-backs.

This could be interpreted as extending the monopoly right of the licensor. On the other hand it may well be seen as a justification as the licensor owns the base technology.

As jurisdictional licensing was discussed in detail in Chapter II, only a few brief comments concerning licensing from a strategic perspective are outlined below.

4.4.1 China

Many a foreign company have overlooked China's technology import and export regulations, the Administration of Technology Import and Export Regulations and Administration of Registration of Technology Import and Export Contracts Procedures (the 'Technology Regulations'), which can impede operations in China and substantially affect a company's intellectual property rights to technology licensed into China.⁶⁶⁰

The broader scope for allowance of compulsory licences, in the case of China, is worth reiterating. Companies negotiating licences in China should bear in mind that their bargaining position is not as strong in China as compared to the United States, where the right to exclude others from practicing a patent is almost absolute.

China has now implemented its anti-Monopoly Law.⁶⁶¹ As this is a new law it is important to take note of this and the potential impact it may have with regards to technology and other business contracts with China. In essence it defines the following 3 types of monopolistic conduct:

- (i) monopoly agreements made between undertakings
- (ii) abuse of dominant market position by undertakings
- (iii) concentration⁶⁶² conduct by undertakings that may have the effect of eliminating or restricting competition.

⁶⁶⁰ IP MANAGEMENT Supplement – 1 April 2008 edition, CHINA IP FOCUS 2008 6th Edition "Traps for the unwary "

⁶⁶¹ It came into effect on 1 August 2008 and aims to provide a comprehensive framework for regulating market competition in the PRC. The new Law is expected to have a more significant impact on foreign investments than the 12 existing PRC laws and regulations on anti-trust provisions and anti-competitive conduct. " Source: http://news.xinhuanet.com/english/2007-08/30/content_6632075.htm (Last visited on 24 June 2010)

⁶⁶² Concentration is defined in Chapter IV as "mergers; controlling other undertakings by acquiring shares or assets; and acquiring control by contract or by obtaining the ability to exercise decisive influence over other undertakings by contract or other means".

The term 'monopoly agreement' in the Anti-Monopoly Law refers to the agreements, decisions or other concerted behaviour that eliminates or restricts competition.

Under the Anti-Monopoly Law not only offshore transactions will be affected, but purely domestic acquisitions will also be covered. Another significant element of the Anti-Monopoly Law is that foreign investors intending to merge and/or acquire entities in the PRC, will now have to comply with the procedure of anti-monopoly notification and be subject to the national security examination.

4.4.2 Japan

In Japan, all licensing agreements with foreigners must be notified to the Ministry of Finance within fifteen days of execution. Additionally, exclusive licenses that lasts for more than a year and involve a license that has more than 10 per cent market share of the relevant market or is ranked a third higher in the relevant industry, must be modified to the Japan Fair Trade Commission.

The Japanese law allows for cross-licensing and specifically to the owner of any improvement patent that falls within the scope of the dominant patent.⁶⁶³

What is important to note is that there is a trend⁶⁶⁴ in Japan that the courts start to unduly broad interpretation of patents and even in a couple of instances ordering the patentee to grant licenses to correct perceived misuses of intellectual property rights.

4.4.3 Europe

The European Union, also have strict antitrust laws that affect technology licensing. The European Union has issued detailed regulations known as a block exemption, governing patent and know-how licensing agreements as well as ancillary provisions relating to other intellectual property rights. These block exemption regulations are entitled 'Commission Regulation (EC) No. 240/96 of 31 January 1997 on the Application of Article 85(3) of the Treaty [of Rome] to certain categories of technology transfer agreements.' These regulations should be carefully considered by anyone currently licensing or contemplating the licensing of technology to the European Union.

⁶⁶³ See Chapter II.

⁶⁶⁴ The Licensing Journal, February 2007 "International Considerations in IP Licensing" by John Richards

4.4.4 USA

In a few instances, international technology licensing agreements can unlawfully restrain trade in violation of US or foreign antitrust laws.⁶⁶⁵ As a general rule, US antitrust laws prohibit international technology licensing agreements that unreasonably restrict imports of competing goods or technology into the United States or unreasonably restrain US domestic competition or exports by US persons.

Whether or not a restraint is reasonable is a fact-specific determination that is made after consideration of the availability of:

- Competing goods or technology
- Market shares
- Barriers to entry
- The business justifications for and the duration of contractual restraints
- Valid patents, trade marks, and copyrights.

The US Department of Justice's and Federal Trade Commission's Antitrust Guidelines the Licensing of Intellectual Property⁶⁶⁶ (1995) states the 2 agencies' enforcement policies regarding the licensing of intellectual property protected by patent, copyright, and trade secret law and know-how. For instances in which significant federal antitrust issues are presented, US licensors may wish to consider applying for an export trade certificate of review from the Department of Commerce or requesting a Department of Justice business review letter. The Commission often publishes⁶⁶⁷ papers and press releases on the subject. Investors in US should take note of these aspects.

5 Strategic perspective

From the perspective of a Western company investing in foreign jurisdictions and exploiting its intellectual property, the complexities of legislative requirements in these jurisdictions cannot be overlooked. Intellectual property laws, anti-monopoly laws and contractual restrictions are of extreme importance in considering such an investment.⁶⁶⁸

⁶⁶⁵ A Basic Guide to Exporting - Technology Licensing-Joint Ventures to be found at <http://www.unzco.com/basicguide/c6.html> (Last visited on 24 June 2010)

⁶⁶⁶ See <http://www.usdoj.gov/atr/public/guidelines/0558.htm> (Last visited on 24 June 2010)

⁶⁶⁷ See <http://www.ftc.gov/opp/intellect/index.htm> (Last visited on 24 June 2010)

⁶⁶⁸ Bringing Best Practise to China, McKenzie Quarterly. Nov 2007, to be found at: http://www.mckinseyquarterly.com/Bringing_best_practice_to_China_2044_abstract

As the People's Republic of China (PRC) represents almost 20 per cent of the world's population⁶⁶⁹ and has one of the world's fastest growing economies; any international intellectual property exploitation strategy cannot afford to simply ignore such a market. As discussed in Chapter II, the PRC has adopted a set of intellectual property laws and has continued to update and amend them. Investors should thus take note of, and study these changes in consultation with Chinese counsel, as these will surely impact on investment in China. The Anti-Monopoly Law is regarded as one of the most important laws passed by the PRC Government since its entry into the World Trade Organization and a great milestone in PRC's legal history.⁶⁷⁰

It remains to be seen how the implementing rules can clarify the broad language used in the Anti-Monopoly Law and if the relevant authorities will apply foreign concepts and interpretations to the competition principles embedded in the new Law.

In challenging economic times, businesses have to take focused investment decisions, which means some companies cut back on their intellectual property investments. Unfortunately those companies that are not strategic in this process can undercut the foundation of future growth. Companies that are not paying attention to intellectual property may very well find it more difficult to raise capital than those that are paying attention to it.

⁶⁶⁹ The estimated population as on 23 June 2010 is that China represents 19.6% of the world's population see statistics on Wikipedia on http://en.wikipedia.org/wiki/List_of_countries_by_population#List (Last visited on 24 June 2010)

⁶⁷⁰ Les Nouvelles – June 2008, Licensing in China: The New Anti-Monopoly Law, The Abuse of IP Rights and Trade Tensions, by Paul Jones, p106

CHAPTER V – INTELLECTUAL PROPERTY BUSINESS MODELS

1 Definition of an IP business model

As should be clear from the previous chapters, intellectual property does not make money on its own. Much patented material will never be exploited commercially, especially in the pharmaceutical and chemical fields. An example would be that there are a huge number of chemicals identified as possible drugs – needing IP protection – but few are ever commercialised. It may be important to retain the patents so that inventions may be exploited in a future use, but they are not commercial products. A suitable business model is needed, depending on the industry to effectively manage a patent portfolio. Knowledge of the scope of the company's intellectual property portfolio and the manner in which segments of the portfolio are targeted when integrated into the company's business strategy is essential. A business model can then be derived to achieve sustainable and effective trading, as has been shown for many large corporations.⁶⁷¹ Raymond Millien⁶⁷² of the PCT Law Group⁶⁷³ of Companies has asserted that with the boom of the industrial age, the worth and value of modern companies lies largely in their intangible assets,⁶⁷⁴ e.g., their intellectual property versus traditional mechanisms of value, such as real property.

The management of IP portfolios and their value, irrespective of the products which underlie the portfolios, provides an opportunity for business models in their own right. This is the topic identified and discussed here.

There are several emerging and established business models for turning intellectual property into revenue. The list of established business models runs the gamut from patent licensing and enforcement companies to IP-based mergers and acquisition (M&A) advisory businesses.

⁶⁷¹ "Systematic route from business model to IPR strategy" by Prof. A Wurzer, Innovation Management, September-November 2007, Nr 3, sites the examples of Dolby-Laboratories, Qualcomm, Fraunhofer-Gesellschaft, IBM, Microsoft, Oracle, SAP and a few others

⁶⁷² Mr. Millien is a well known US practitioner, whose practice includes developing strategies and counseling clients on patent, copyright, trade mark and trade secret matters, including negotiating and drafting patent applications and technology-related agreements. He also performs intellectual property portfolio evaluations and due diligence for corporate transactions such as mergers, acquisitions, private offerings of equity and debt securities and bridge loans. Prior to joining PCT, Mr. Millien was the General Counsel of Ocean Tomo, LLC, the country's leading IP merchant bank. Prior to Ocean Tomo, He was Vice President and IP Counsel at The American Express Company where his responsibilities included managing the company's global patent portfolio and leading technology outward-licensing deals. Presently he is a national lecturer for the BAR/BRI Patent Bar review course. He has served as an adjunct professor of legal writing and oral advocacy at the George Washington University Law School as well as a professorial lecturer of Intellectual Property Law at the George Washington School of Engineering and as such an expert in the field of IP management

⁶⁷³ An advisory and asset management firm focused on an emerging asset class - Intellectual Property (i.e., patents, copyrights and trade marks).

⁶⁷⁴ Developing IP Business Models," U.S. Federal Trade Commission Hearing On The Evolving IP Marketplace, Washington, DC (Dec. 5, 2008)

The term business model is often used but not often clearly defined. Chesbrough⁶⁷⁵ developed a specific and useful working definition in terms of the functions⁶⁷⁶ of such a business model. These are to:

- Articulate the **value proposition**, that is, the value created for users by the offering based on the technology/IP.
- Identify a **market segment** in which the technology/IP is useful and will be used.
- Define the structure of the **value chain**, which is required to create and distribute the offering, and to determine the complementary assets needed to support a position in this chain.
- Specify the revenue generation mechanism(s), and estimate the **cost structure** and **target margins** of producing the offering, given the value proposition and value chain structure chosen.
- Describe the position of the company within the **value network** linking suppliers and customers, including identification of potential complementary companies and competitors.
- Formulate the **competitive strategy** by which the (innovating) company will gain and hold advantage over rivals.

The value and commercial success of any intellectual property largely depends on 4 major components:⁶⁷⁷

- there must be a market demand
- the intellectual property must be usable
- the intellectual property must be unique so as to have value
- the right intellectual property business model is essential.

2 Different types of IP business models

Over time many innovative intellectual property business models have been introduced.⁶⁷⁸ A brief summary of the models that are currently available is provided below.

⁶⁷⁵ Adjunct Professor, Executive Director, Center for Open Innovation Institute of Management, Innovation & Organization, Management of Technology Programme and one of the leading experts in development of IP business models as well as the author of many textbooks and other literature on the subject (See <http://www.haas.berkeley.edu/faculty/chesbrough.html>) (Last visited on 8 July 2010)

⁶⁷⁶ "Open Business Models: How to Thrive in the New Innovation Landscape", By Henry William Chesbrough, Published by Harvard Business Press, 2006, ISBN 1422104273, 9781422104279

⁶⁷⁷ "Best Practice in Intellectual Property Management", The Epic Eye, Peter Ivey, Innotec Ltd and the EPPIC Faraday Partnership, to be found here http://www.fptt-pftt.gc.ca/eng/resources/articles/2007/03/Best_Practice_in_Intellectual_Property_Management.html (Last visited on 7 July 2010)

⁶⁷⁸ SURVEY & COMPARISON OF ESTABLISHED AND EMERGING IP BUSINESS MODELS by Ron Lauri, Managing Director, Inflection Point Strategy, LLC www.ip-strategy.com, "Buying, Selling, and Licensing Patents", Law Seminars

2.1 Established IP business models

There are essentially 5 established intellectual property business models⁶⁷⁹ (2.1.1 to 2.1.5):

2.1.1 Market makers and transaction intermediaries

- **Licensing Agents/specialists**⁶⁸⁰ - entities that function under this business model often call themselves IP advisory, IP consulting, intellectual property management or technology transfer firms. While the amount, quality and depth of services vary to some degree in shape or form, these firms all earn retainer and/or success fees by assisting patent owners (generally on a global basis) to find licensees executing IP strategies that maximise the return on their investment in IP. Accordingly, these entities may function more like traditional consultants where the patent owner remains very involved in the licensing process, or they may function more like IT companies where the patent owner essentially outsources patent monetisation and is not involved in day-to-day licensing operations, but still collects a majority of any licensing revenue. Examples of entities that practice this model are Fairfield Resources,⁶⁸¹ Fluid Innovation General Patent,⁶⁸² ipCapital Group,⁶⁸³ IPValue,⁶⁸⁴ Invention Marketing⁶⁸⁵ and ThinkFire.⁶⁸⁶
- **University technology transfer intermediaries** - entities that function as IP Development Companies, IP Acquisition Funds, Licensing Agents and/or Patent Brokers, but focusing on the niche university technology transfer market. These entities specifically find application in USA⁶⁸⁷ and Japan⁶⁸⁸ in view of the IP legislation (i.e., licensing). Examples are Univ. TLO's and Texelerate.⁶⁸⁹

International, San Francisco, January 24-25, 2008 to be found here

http://www.cs.berkeley.edu/~tlavian/spring2008/guestSpeakers/Ron_LSI_08PATSCA_IP_Business_Models-1-.pdf (Last visited on 7 July 2010)

⁶⁷⁹ As posted on Established & Emerging IP Business Models Posted on November 14, 2007 by Thomas J. Colson to be found here <http://www.securingininnovation.com/2007/11/articles/patents/established-emerging-ip-business-models/> (Last visited on 7 July 2010)

⁶⁸⁰ <http://www.ftc.gov/bc/workshops/ipmarketplace/dec5/docs/millien.pdf> (this URL provides some access to one of Millien's presentations on the IP market place for IP transaction intermediaries and their strategies) (Last visited on 7 July 2010)

⁶⁸¹ See <http://www.frlicense.com/> (Last visited on 7 July 2010)

⁶⁸² See <http://blog.fluidinnovation.com/> (Last visited on 7 July 2010)

⁶⁸³ See <http://www.ipcg.com/> (Last visited on 7 July 2010)

⁶⁸⁴ See <http://www.ipvalue.com/company/index.html> (Last visited on 7 July 2010)

⁶⁸⁵ See <http://www.lambertinvent.com/index.php?content=home> (Last visited on 7 July 2010)

⁶⁸⁶ See <http://www.thinkfire.com/> (Last visited on 7 July 2010)

⁶⁸⁷ Bayh Dole Act of 1980

⁶⁸⁸ "Law on Special Measures for Industrial Revitalization," a law that is comparable to the American Bayh-Dole Act and commonly referred to as the "Japanese Bayh-Dole," went into effect on October 1, 1999

⁶⁸⁹ See <http://www.texelerate.net/> (Last visited on 7 July 2010)

- **On-line IP/technology exchanges** - entities that function like the business-to-business (B2B) web sites. These entities assist clients to realise a return on their IP investments by locating unrealised IP value potential, especially in situations where IP and technology offer substantial market opportunities for products, services or co-operative relationships with third parties, and by acquiring IP and accessing technology solutions finds IP and technology around the globe, enabling clients quickly and efficiently to enhance their own resources and to address gaps in their IP portfolios. Examples are Yet2.com;⁶⁹⁰ OpenIP.org.⁶⁹¹
- **IP-backed financiers**⁶⁹² - entities that provide financing for IP owners, either directly or as intermediaries, usually in the form of loans (debt financing) where the security for the loan is either wholly or partially IP assets (i.e. IP collateralization) such UCC Capital.⁶⁹³
- **Royalty stream securitisation firms**⁶⁹⁴ - entities that counsel, assist and/or provide capital to patent owners performing IP securitization financing transactions (which resemble the more common mortgage-backed securities⁶⁹⁵).
- **Patent brokers**⁶⁹⁶ - entities that function essentially the same as Licensing Agent model discussed above, but they seek to assist patent owners in finding buyers rather than licensees. Examples include PCT Capital,⁶⁹⁷ Inflexion Point⁶⁹⁸ and iPotential.⁶⁹⁹
- **IP-based M&A advisory**⁷⁰⁰ - entities that operate in a traditional investment banking model - advising technology companies in their merger and acquisition (M&A) activities and earning fees based on the value of the entire deal (or apportioned according to the value of the IP within the deal), such as PCT Capital, Inflexion Point.

⁶⁹⁰ See <http://www.yet2.com/app/about/home> (Last visited on 7 July 2010)

⁶⁹¹ See <http://www.aboutus.org/OpenIp.org> (Last visited on 7 July 2010)

⁶⁹² See for example "IP finance ... where money issues meet intellectual property rights" to be found at <http://ipfinance.blogspot.com/2009/02/business-models-free-music-and-pay-for.html> (Last visited on 7 July 2010)

⁶⁹³ See <http://www.fibre2fashion.com/news/company-news/ucc-capital-corporation/> (Last visited on 7 July 2010)

⁶⁹⁴ Intellectual Property Business Models, Date of publication: September 3, 2008, from IP ThinkTank to be found here <http://www.currentpartnering.com/articles/1355> (Last visited on 7 July 2010)

⁶⁹⁵ See generally, IPLaw360 (May 2, 2006), IP Securitization Getting a Second Look, by Anne Urda,; William J. Kramer and Chirag B. Patel, Securitisation of Intellectual Property Assets in the US Market, Marshall, Gerstein & Borun (Jan. 2003) (available from <http://www.marshallip.com/newspublications.html>).

⁶⁹⁶ See for example New IP Business Models: Patent Brokerage and Beyond 2008 (Audio-only) at http://www.pli.edu/product/cleow_detail.asp?id=45446 (last visited 7 July 2010)

⁶⁹⁷ See <http://www.pctcapital.com/> (Last visited on 7 July 2010)

⁶⁹⁸ See <http://www.inflexion-point.com/> (Last visited on 7 July 2010)

⁶⁹⁹ See <http://ipotential.com/> (Last visited on 7 July 2010)

⁷⁰⁰ See for example "IP Monetization - How to capture value from your inventions and intellectual assets" on <http://www.swedenbio.com/en/Calendar/Be-clubIP-Monetization---How-to-capture-value-from-your-inventions-and-intellectual-assets/> (Last visited on 7 July 2010)

- **IP auction houses**⁷⁰¹ - entities that are attempting to do for the patent marketplace what famed London auction houses Christie's and Sotheby's did for the antique and art marketplace, such as IPA GmbH and IP Auctions.

2.1.2 Enforcers and litigation financiers⁷⁰²

- **Patent Licensing and Enforcement (PLEC)** - used by entities that own one or more patent portfolios, attempt to license them through targeted letter-writing campaigns, and then file patent infringement suits against those letter recipients who refuse to enter into (non-exclusive) license arrangements.
- **Litigation finance/Investment firms** - entities that are a cross between IP Acquisition Funds and PLECs.

2.1.3 Institutional patent aggregators/IP acquisition funds

A recent⁷⁰³ business model is the third-party financing entities doing defensive patent aggregation⁷⁰⁴ whereby a third-party (the aggregator) purchases the patents or patent rights strictly to mitigate the risk and cost of litigation associated with non-practicing entities and provides licences to members against a fixed annual membership fee. This model was introduced by RPX Corporation⁷⁰⁵, a start-up based in San Francisco. The investors are promised above average return on investment (ROI) from selective, targeted or large-scale patent purchases with the goal of instituting licensing programmes and/or employing various arbitrage strategies. Apart from RPX⁷⁰⁶ another example is Allied Security Trust.⁷⁰⁷

2.1.4 IP product companies

These are entities that engage in R&D activities and produce IP (including both patents and know-how) much like traditional operating companies; however, the developed technology is not used to manufacture products in the form of physical goods.

⁷⁰¹ THE EIGHTH ANNUAL SEDONA CONFERENCE ON PATENT LITIGATION, OCTOBER 12, 2007, SEDONA, AZ, "Established and Emerging IP Business Models" by Raymond Millien and Ron Laurie to be found here <http://www.wapatents.com/Established2007.pdf> (Last visited on 7 July 2010)

⁷⁰² See for example <http://www.bio-medicine.org/biology-technology/Patent-licensing-3A-For-enforcing-companies--the-rules-have-changed-1710-1/> (Last visited on 7 July 2010)

⁷⁰³ Emerged in 2008

⁷⁰⁴ A defensive patent aggregation (DPA) is the purchasing of patents or patent rights in order to keep such patents out of the hands of entities that would assert them against operating companies

⁷⁰⁵ RPX Corporation is the first defensive patent aggregator. The RPX Defensive Patent Aggregation does not require member involvement in acquisitions, and RPX will not enforce the patents it purchases. RPX management has been responsible for more than \$2 billion in patent transactions. RPX is financed by Kleiner Perkins Caufield & Byers and Charles River Ventures – See http://www.rpxcorp.com/releases/current/launch_081125.html (Last visited on 7 July 2010)

⁷⁰⁶ http://news.cnet.com/8301-13505_3-10106389-16.html (Last visited on 7 July 2010)

⁷⁰⁷ See http://en.wikipedia.org/wiki/Allied_Security_Trust (Last visited on 7 July 2010)

These companies may also utilise a revenue model based on technology transfer (design information, process know-how and consulting), patent enforcement, or both. An example is the Public Patent Foundation Company.⁷⁰⁸

2.1.5 Analytics, toolmakers and service providers

These are typically the Patent Rating Software and Services⁷⁰⁹ organisations. These are entities that provide advanced patent search and analytics software tools that allow patent owners, attorneys, investors and other players in the IP marketplace to obtain various intelligence and data points about a single patent or patent portfolio. Examples are Delphion, Questel, Aureka, and others.

2.2 Emerging IP business models

Business models that have emerged recently include:

2.2.1 IP transaction exchanges/Trading platforms^{710,711}

Plans have been announced to create traded exchanges (whether physical or online locations) similar to the NYSE and NASDAQ where yet-to-be created IP-based financial instruments would be listed and traded much like stocks are today.

2.2.2 Defensive patent pools⁷¹²

These entities that seek to selectively acquire portfolios of patents for defensive reasons. Such pools are typically in one technology area or in one industry segment, and are inspired by a 'let's buy them before the trolls do' attitude. Thus, this model results in multiple operating companies who may have not previously co-operated, done business or even respected each other, joining financial and other resources to create a corporate entity to acquire 'problematic' patents, and license them to anyone willing to share the financial burden (Open Innovation network is an example).

⁷⁰⁸ <http://www.pubpat.org/?gclid=CPqL-bCE3JoCFQVfFQodUk0i3A> (Last visited on 7 July 2010)

⁷⁰⁹ See for example Thomson Reuters, Intellectual Property Services as on http://thomsonreuters.com/products_services/scientific/TS_Consulting_Services?gclid=CKvmuc-O-pgCFQ4gZwod0Fx-mg (Last visited on 7 July 2010)

⁷¹⁰ *Supra* Laurie

⁷¹¹ Electronic Business, 1 January 2009, "Whether it's by asserting patent rights or defending against so-called trolls, entrepreneurs and investors are trying new IP business models", By Tam Harbert, Contributing Editor -- to be viewed at http://www.probecard.net/index.php/index.php?option=com_content&view=article&id=77:evolving-ip-market-spawns-a-raft-of-new-approaches-&catid=1:latest-news (Last visited on 7 July 2010)

⁷¹² FTC Hearing on the Evolving IP Marketplace December 5, 2008 Washington, D.C., The Intellectual Property Marketplace Players by Raymond Millien CEO, PCT Capital, LLC to be viewed at <http://www.ftc.gov/bc/workshops/ipmarketplace/dec5/docs/rmillien.pdf> (Last visited on 7 July 2010)

2.2.3 Technology/IP spinout financing

Organised as a traditional venture capital (VC) or private equity firm but specialising in spinning out promising non-core IP which has become 'stranded' within larger technology companies, or creating joint ventures between large technology companies to commercialise the technology and monetize the associated IP.

2.2.4 Patent-based public stock indexes⁷¹³

This business model is the evolution of the established Patent Rating Software and Services intellectual property business model described above. That is, once the entities offering these software tools and platforms realised that nearly 80 per cent of the value of a US publicly-traded company now comes from intangible assets, and that they possessed tools to measure the 'quality' of arguably the largest part of those intangible assets, then it became clear that another potential source of revenue would be the creation of formalised stock indexes based on their existing software tools and platforms. Put in different terms, the Patent Rating software and services industry theorised that investing in stocks with valuable patents, may allow investors to commit a meaningful and sustainable portion of their assets to IP and allow them to outperform other investment strategies. Thus, they sought out different algorithms to create baskets of stocks using the 'quality' of a publicly traded company's patents as the primary selection factor. Revenue from such an emerging business model includes the sale of equity research and the licensing of such indexes investable financial instrument issuers.

2.3 Indirect IP business models

In addition to the business models mentioned above, there are also 4 categories of indirect⁷¹⁴ IP business models. There is however very little information available on these models.

2.3.1 IP maintainer

An alternative model that has been tried by one or two smaller companies, is to rather than sell IP, provide support and bug fixes independently of the IP supplier.

⁷¹³ *Supra* Millien and Laurie

⁷¹⁴ Indirect Intellectual Property business models by United Business Media Ltd. to be found at http://findarticles.com/p/articles/mi_m0WVI/is_2000_Sept_18/ai_65376474 (Last visited on 7 July 2010)

Typically, this works for cores where the original designer does not have the resources to provide direct support. With the emergence of open-source cores, the IP maintainer model may grow to take up the support role for those 'free' cores.

2.3.2 IP supplier

Companies applying this model generally have a piece of specialised IP that it wants to sell. Most will find that they either have to pre-integrate their cores with other technologies. An example of this is the common on-chip buses such as the ARM hardware bus or IBM's CoreConnect.⁷¹⁵ Some, such as InSilicon, have cut sub-licensing deals that let them resell other cores that plug into those buses, such as the processors.⁷¹⁶

2.3.3 Distributor/reseller

The classic distributor is unlikely to participate in actual development or innovation of the IP itself. They acquire and distribute IP products; an example is Taiwan's leading EDA and IP distributor, Maojet Technology.⁷¹⁷ Generally this business model is applied to meet shortcomings in certain industries in certain jurisdictions.

3 Relevance of business models

IP business models are often attacked in the US Courts and legislature, but neither US Supreme Court decisions such as eBay⁷¹⁸ and KSR,⁷¹⁹ nor any of the so-called anti-patent troll legislative⁷²⁰ proposals floating through Congress, will force intermediaries out of the market. With as much as three-quarters of the value of publicly traded companies in America coming from intangible assets, and global IP licensing revenue now being measured in the hundreds of billions of dollars,⁷²¹ there is simply too much economic justification for such entities to exist.

⁷¹⁵ See [http://www-01.ibm.com/chips/techlib/techlib.nsf/techdocs/F175B826ECE6FDE08725711F00770F60/\\$file/G224-7587-01_coreconnect_pb.pdf](http://www-01.ibm.com/chips/techlib/techlib.nsf/techdocs/F175B826ECE6FDE08725711F00770F60/$file/G224-7587-01_coreconnect_pb.pdf) (Last visited on 7 July 2010)

⁷¹⁶ See <http://www.design-reuse.com/articles/2352/platform-ip-for-all-seasons.html> (Last visited on 7 July 2010)

⁷¹⁷ See http://www.kilopass.com/PR_Kilopass-Announces-Maojet-Technology-as-New-Distributor-in-Taiwan.html (Last visited on 7 July 2010)

⁷¹⁸ *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 392-94 (2006) is a case in which the Supreme Court of the United States unanimously determined that an injunction should not automatically issue based on a finding of patent infringement, but also that an injunction should not be denied simply on the basis that the plaintiff does not practice the patented invention. Instead, a federal court must still weigh the four factors traditionally used to determine if an injunction should issue whenever such relief is requested. Court Decision can be viewed here <http://www.supremecourtus.gov/opinions/05pdf/05-130.pdf> (Last visited on 7 July 2010)

⁷¹⁹ *KSR vs Teleflex 500 F. Supp. 2d 1192, 1195-96 (D. Minn. 2007)* is a decision by the Supreme Court of the United States concerning the issue of obviousness as applied to patent claims. Decision can be viewed here <http://www.supremecourtus.gov/opinions/06pdf/04-1350.pdf> (Last visited on 7 July 2010)

⁷²⁰ Interpretation of the FCT Act, Section 5 to consider most activities by IP business model users as anti-competitive behaviour

⁷²¹ "Meet the middlemen" by By Raymond Millien and Ron Laurie, Intellectual Asset Management February/March 2008 to be viewed here http://www.ipcg.com/thoughtleadership/IAM-Meet_the_Middlemen.pdf (Last visited on 7 July 2010)

Creative new IP business models will surely come into existence, quite simply because the business of intellectual property (the IP marketplace) itself is fertile ground for innovation. Recently⁷²² the American Intellectual Property Law Association (AIPLA) considered the topic of business models, the application of the Federal Trade Commission Act (FTC Act), Section 5⁷²³ and its application to intellectual property, wherein most of the business models were seen as anti-competitive as it results in the misuse of patent rights. Following this consideration, a letter was addressed to the FTC⁷²⁴ wherein AIPLA explained that some of these models indeed support the US economy and that a 'proper antitrust analysis that recognizes the importance of the distinguishing characteristics of intellectual property and proper balance with the antitrust laws is crucial if the intellectual property laws are to perform their accepted role in creating incentives for innovation and its dissemination and commercialization. To apply the Commission's 'unfair methods of competition' jurisdiction to conduct that does not rise to the level of a Sherman Act⁷²⁵ violation would introduce a level of risk and uncertainty into the creation and commercialization of intellectual property that would be both unnecessary and contrary to the long-term interests of consumers. Accordingly, as the Commission considers specific cases under Section 5 that involve intellectual property, AIPLA believes the Commission should remain sensitive to these issues.' It should be distinguishable from the Commission's efforts within the bounds of the Sherman Act to obtain the complementary benefits of both the intellectual property laws and the antitrust laws.⁷²⁶

Whether we will see more examples such as the KSR case, and whether there is a mid-way in applying these business models vs anti-competitive behaviour, remains to be seen.

The IP market has come a long way since its first steps and is going to be far more important in the future than it was in the past. Greater trust will lower costs for buyer and seller. Reconfigurable technology will be highly valued. Companies that manage to solve the problem of unpredictability of the market will be highly rewarded.⁷²⁷

⁷²² January 2009, The AIPLA Antitrust News

⁷²³ See http://www.federalreserve.gov/boarddocs/caletters/2007/0708/07-08_attachment.pdf (Last visited on 7 July 2010)

⁷²⁴ http://www.aipla.org/Content/Microsites99/Antitrust_Law/Home2/081024_AIPLA_Statement_on_FTC_Act_Sec_5.pdf (Last visited on 7 July 2010)

⁷²⁵ Sherman Antitrust Act (1890)

⁷²⁶ Section 2 of the Sherman Act : "Monopolizing trade a felony; penalty Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$10,000,000 if a corporation, or, if any other person, \$350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court."

<http://www.stolaf.edu/people/becker/antitrust/statutes/sherman.html> (Last visited on 6 July 2010)

⁷²⁷ "IP business model to continue to exist", by Anne-Francoise Pele, posted on Dec 09, 07, agoracom, News LetterTo be found here <http://agoracom.com/ir/patriot/forums/discussion/topics/174997-ip-business-model-to-continue-to-exist-says-analyst/messages/656280> (Last visited on 6 July 2010)

4 Selecting the appropriate IP business model

The protection of technology and ideas is a challenging and complex activity. In selecting the appropriate business model to support its strategy, as was mentioned in Chapter IV, a business must consider not only what is protected by its registered rights (such as patents), but also what the underlying components are of the technology or business that are not protected and how these can be aligned. In particular, attention should be given to the technology life cycle over the technology value chain to identify risk and opportunities in the value chain. Also bear in mind that it is not only patents that form a basis for licensable technologies, but other intellectual assets that have a marketable value.⁷²⁸ Areas of opportunity may direct entry into certain markets or opportunities to form new - or enhance existing - relationships with suppliers, or generate new revenue streams. It may assist in identifying and choosing to stay away from patent trolls that do not really have the best interest of businesses at heart and which use the business models' 'infrastructure' to abuse patent rights.

The IP portfolio of a company and the way it is used, depends on several factors.⁷²⁹ If a company focuses on marketing and sales, it will usually pay more attention to trade marks and designs, and less to patents. A strong R&D base usually leads to a patent portfolio to protect and exploit the R&D results. The IP portfolio further depends on the IP business model and the competitive environment, both of which relate to the sector of industry the company is in. As an example, electronics companies usually use IP for licensing and consequently have an extensive patent portfolio. Pharmaceutical companies generally have a smaller portfolio, better suited for protecting their own products in order to support exclusive market positions. In a conglomerate, different parts may have different portfolios, each with their unique policies.

The business strategy of the company may be such that the best option is not to apply for IPR protection but use other IP protection and exploitation methods. It is however important that such determination is well made in order to avoid missed opportunities, e.g. in licensing or attracting capital from investors, and to estimate the business risks caused by lack of protection.

⁷²⁸ Les Nouvelles, March 2009, "A best practice for developing, expanding and renewing your inventory licensable technologies", DJ Gibson and NJ De Marino, pp18-20

⁷²⁹ A MEMORANDUM ON REMOVING BARRIERS FOR A BETTER USE OF IPR BY SMEs A Report for the Directorate-General for Enterprise and Industry by an IPR Expert Group June 2007 Source for SME Business Models http://www.proinno-europe.eu/NWEV/uploaded_documents/IPR_Expert_group_report_final_23_07_07.pdf (Last visited on 6 July 2010)

At the heart of all the intellectual property business models discussed above, lies some or other form of user right to the underlying intellectual property. Revenues are generally created via licensing, enforcement, sale, or a combination of these of the intellectual property.⁷³⁰

When analysing the current situation of a company/business the strategic question is (from an internal perspective) 'where am I (company position) and what can I do (service offering)' and (from an external perspective) 'who is the market (customer group) and what does the market want (customer benefits)' and how this can be integrated to create revenue (income mechanism).⁷³¹ It is within the income mechanism that the appropriate IP business model is to be selected.⁷³² There is no particular single IP business model that will work for all industries or businesses. To understand the business model needed, a good example will be some familiar and longstanding electronic-industry business models. In these models, system designers have relied on printed-circuit boards as their system-integration medium, with 'IP' encapsulated in plastic packages known as integrated circuits or components.⁷³³ Component suppliers provide the system designer with data books, application notes and free samples for prototyping. The idea is to provide such attractive technology, support and pricing that a supplier's components achieve system 'design wins' that will turn into volume orders and fuel business growth. Customers pay as they go. If the supplier can contribute to their success, everyone benefits. If the customer fails, the supplier fails to profit. This total goal alignment makes for a good customer/vendor business relationship. Everyone is focused on getting to volume quickly. Another example is the IP re-use business model used in the semiconductor industry.⁷³⁴ The business model has 3 essential components being the IP Provider that provides existing IP on which new technology can be built, the IP Business that takes care of the implementation of the business model, legal issues and security aspects and the IP Interrogator that takes care of exploration, integration, methodology, environment and standardisation. An example is IP Japan 2000.⁷³⁵

⁷³⁰ "Patent Enforcement: Licensing and litigation considerations" by Bruce C Haas and Christopher V Beckman, Intellectual Property Value 2008, pp 68-71 to be viewed here http://www.buildingipvalue.com/08_USA/68-71Fitzpatrick.pdf (Last visited on 6 July 2010)

⁷³¹ *Supra* Wurzer

⁷³² GLOBAL IP STRATEGY, Intellectual Property Business Models, by the Duncan Bucknell Company to be found here <http://duncanbucknell.com/blog/414/Intellectual-Property-Business-Models>, September 3, 2008 (Last visited 6 July 2010)

⁷³³ See EE Times, "Don't reinvent wheel for IP business model", by Mark Templeton (14 Dec 1998) to be found here <http://www.eetimes.com/op/showArticle.jhtml?articleID=18300618> (Last visited 6 July 2010)

⁷³⁴ See http://www.cs.york.ac.uk/rts/docs/SIGDA-Compendium-1994-2004/papers/2000/aspdac00/pdf/1b_1.pdf (Last visited on 6 July 2010)

⁷³⁵ See http://techon.nikkeibp.co.jp/NEAD/ipj2000/e_01.htm (Last visited on 6 July 2010)

Intellectual property and specifically patent licensing, plays an increasingly important role in today's international technology trade. For the purpose of this paper IP, the discussion on licensing as a business model will continue below.

Licensing business models are no different from the other models referred to above. To select the most appropriate business model, it is necessary to study other IP licensing business models that work and that are related to a specific business and/or industry.

Intellectual property licensing and the management thereof has to be viewed from a strategic perspective;⁷³⁶ mapping the intellectual property of a company and that of its competitors on the entire value chain of the company, identifying the areas where the intellectual property portfolio is not aligned with the value chain and thereby identifying the high, moderate and low intellectual property risk areas. What is important is that similar to management of technology not being stagnant through the technology life cycle, the management of intellectual property ought to be tailored⁷³⁷ to the phase of the technology life cycle which the intellectual property covers.

According to Chesbrough's⁷³⁸ IP life cycle model the following stages are included:

- Initial stage of new technology – invest in creating intellectual property and choose the best method to protect it.
- Deployment stage of technology – consider options to take technology to the market including partnering or other complimentary.
- Harvesting fruit of technology stage – using technology within the business, extend use to competitors, customers, suppliers and third parties in other markets. This has both revenue and profit opportunities offered by external licensing or spinouts.
- Manage exit from technology – this may be forced by expiry of registered intellectual property rights, or replacement (new) technology. The intellectual property may however remain quite valuable to another company's business model in a different use.

⁷³⁶ Les Nouvelles, September 2007, "Licensing in the Context of the Business Model: One size does not fit all" by Henry Chesbrough.

⁷³⁷ See the step-by-step strategy process in Chapter IV, also see Financial Times, Dec 2005, "The Dynamics of Standing Still: Firestone Tire & Rubber and the Radial Revolution, November 27, 2000, at <http://hbswk.hbs.edu/cgi-bin/print?id=1832> and "Why Good Companies go bad", to be viewed at <http://www.scribd.com/doc/2912735/Why-Good-Companies-Go-Bad>, by Donald Sull (Last visited on 6 July 2010)

⁷³⁸ Harvard Business School Press: Boston, MA, 2003. "Open Innovation: The New imperative for creating a profiting from Technology", Henry Chesbrough.

In each of the life cycle stages the IP business model entails some or other form of licensing⁷³⁹ from the technology base⁷⁴⁰ on the one hand, and the market accessibility⁷⁴¹ with respect to business customers and customer requirements, on the other hand. Patents, at the beginning of their life cycle present better licensing opportunities, as these are not already heavily licensed⁷⁴² to other parties. As such they may provide enhanced benefit to a new potential, non-exclusive licensee which places the licensor in an improved negotiating position.

Licensing is often viewed as a compromise because it requires the patent owner to share its intellectual property. However, it can lead to significant market expansion and generate new sources of revenue⁷⁴³ for the owner through the business relationship. Companies like AT&T, TI, and Microsoft have built successful businesses based on a combination of assessing value for developed and acquired intellectual property and licensing it to other companies, which enhance their market valuation and give them opportunities to sell their own value-added products.⁷⁴⁴ Each of those companies spent many years in developing business that benefit both customers and vendors. IBM has generated between US\$1.5 – 2 billion in patent licensing revenue annually.⁷⁴⁵

Other business models may thrive on creation of exclusivity and/or differentiation in the market through the income mechanism. For example, in the pharmaceutical industry, for companies such as Pfizer, Merck and AstraZeneca a strong patent monopoly strategy supports the income mechanism by achieving premium prices through exclusivity in the market.⁷⁴⁶

Strategic alliances with other companies already positioned to exploit their technology are becoming more frequent.

⁷³⁹ Licensing in the Boardroom 2008, "Putting a stop to IP licensing revenue leakage" by Marston and Butler, PriceWaterhouse Coopers wherein it is stated that, based on recent surveys, the trend towards licensing is escalating, making it more important than ever to manage licensed IP as a strategic asset. Pp 58-61

⁷⁴⁰ With the technology domain focusing on technique, feasibility, product properties, field of use, supply ability etc.

⁷⁴¹ With the market domain focusing on turnover, price, market share and profit

⁷⁴² As may be the case with near end of lifecycle patents

⁷⁴³ See "Rembrandts in the Attic: Unlocking the Hidden Value of Patents", by Kevin G Rivette and David Kline according to which "during the 1990's annual patent licensing revenue in the USA increased from approx. US\$15 billion to over US\$100 billion."

⁷⁴⁴ Mentor Graphics Corp. website, IP White papers, "Intellectual Property Business Models: Who Will Be the Microsoft of the EDA Industry - and the Next Bill Gates" to be found at http://www.mentor.com/products/ip/techpubs/mentorpaper_6090.cfm (Last visited on 10 July 2010)

⁷⁴⁵ IP Value 2008, Building and enforcing intellectual property value "Patent enforcement: licensing and litigation considerations", by Fitzpatrick Cella Harper and Scinto, pp68-71

⁷⁴⁶ Technology Resource Management, "the systematic route from the business model to IPR strategy" by Wurzer, Innovation Management, September-November 2007, Nr 3

This strategy is followed in particular by businesses who wish to either acquire a portfolio supporting its core business, or expanding beyond their core business.⁷⁴⁷

The risk of technology licensing includes aspects such as depreciation of value to the licensor as the licensee now shares the technology, loss of control over how patented technology is exploited by the licensee, potential risk of loss of reputation in technology, for example. It is thus essential that a licensing contract is well-drafted so as to minimise these risks and provide for an appropriate escape clause where the licensor needs to terminate the relationship.

Another aspect in the licensing model is that the value of the license is impacted by the validity and enforceability of patents. In the American model, a new alternative arose. US companies appear to make use of re-examination procedures⁷⁴⁸ as a viable vehicle for post-grant challenges to patent validity, especially where there is co-pending or threatened district court litigation. The benefits of a successful re-examination can secure stay of litigation stay, and an accused infringer could potentially avoid the huge costs of litigation. A comprehensive re-examination strategy through all possible appeals could cost, at most, a few hundred thousand to a million dollars. A trial, on the other hand, could cost several millions of dollars in discovery costs alone.

In addition to validity challenges, almost all licences include a component of patent infringement indemnification in favour of the licensee. Depending on the type of license, the underlying technology and risk associated with application of the licensed subject, the value of indemnification may differ.

As such, successful licensing strategies do not exclude the possibility of litigation. For example if licensing negotiations fail, the option of enforcement of patent rights through infringement litigation may be pursued. If this is a strategic option, it is essential that the licensed portfolio indeed include valid and enforceable patents. This strategy does however hold its own risks;⁷⁴⁹ specifically so as these cases are generally complex and the outcome of patent infringement cases is difficult to predict both at trial and on appeal.

⁷⁴⁷ See also General Counsel Round Table brief on "Approaches to IP protection in Emerging Markets", April 2008, to be viewed at <https://gcr.executiveboard.com/Members/ResearchAndTools/Abstracts.aspx?cid=1000694> (Last visited on 21 June 2010)

⁷⁴⁸ See Reexamination Practice with Concurrent District Court or USITC Patent Litigation, by *Robert Greene Sterne, Kenneth C. Bass III, Jon E. Wright, Lori A Gordon & Matthew J. Dowd Sterne Kessler Goldstein & Fox, Washington, DC*, Copyright © 2008, The Sedona Conference® and Robert Greene Sterne, Kenneth C. Bass III, Jon E. Wright, Lori A. Gordon & Matthew J. Dowd to be viewed here: <http://64.237.99.107/media/pnc/8/media.908.pdf> (Last visited on 21 June 2010)

⁷⁴⁹ Which could include losing proprietary trade secrets during discovery proceedings to facing counterclaims from the defendant's competing patent portfolio.

Businesses should not underestimate the value of IP enforcement in their business models. This can be done either as part of the licensing strategy, as mentioned above, or as an independent revenue creation strategy. The growing success of intellectual property enforcement⁷⁵⁰ clearly shows the benefits enforcement may bring. Patent enforcement has become a primary source of revenue for a wide range of industries.⁷⁵¹ Effective patent enforcement is even more important in manufacturing operations which are increasingly moving globally and in particular into less developed countries. In the context of China, there have been a series of recent court decisions awarding high damages^{752 753} to victims of IP infringement. One propitious signal of development of IP law in China is the ruling in *Zhengtai Group vs Schneider*. In this case the court of first instance⁷⁵⁴ awarded very large damages (over US\$45 million). This case suggests that IP infringement is becoming more expensive to infringers and that damages are becoming more sophisticated in Chinese proceedings.⁷⁵⁵

An example in the US context, from 2003 to 2008 patent litigation for 10 US telecommunications companies grew 329 per cent.⁷⁵⁶ During this same period, total patent litigation cases in the US increased only 1.6 per cent according to data published by Patent Freedom.⁷⁵⁷

⁷⁵⁰ Patent infringement statistics (a course to be viewed at http://www.inventionstatistics.com/Patent_Lawsuit_Litigation_Settlement_Damage_Awards.html) (Last visited on 7 July 2010) shows an example as recent as April 2009 in the amount of US\$ 537 million. Size of patent infringement payout damages awarded by a court to Australian inventor Richardson for infringement by Microsoft Corporation on his software piracy patent

⁷⁵¹ IBM and General Electric now enforce patents as a leading source of revenue growth (Ibid – Haas *et al*). See also The Ottawa technology patent enforcement company said yesterday that it expects current and future patent license deals to drive revenues to a range of \$30 million to \$34 million in the fiscal year that ends in October, from \$26.6 million in the previous fiscal year to be viewed here <http://www.ottawacitizen.com/news/predicts+revenue+growth/1174456/story.html> and TeleCommunication Systems, Inc. (TCS) to be viewed here http://findarticles.com/p/articles/mi_pwwi/is_200802/ai_n21412751; also see The New CFO Financial Leadership Manual, By Steven M. Bragg, Published by John Wiley and Sons, 2007, ISBN 0470082003, 9780470082003

⁷⁵² See the Yamaha vs Zhejiang Huatien wherein Yamaha Motors has been awarded the highest damages ever paid to a foreign company in China for trade mark infringement. China's highest court has awarded damages of 8.3 million Yuan against domestic motorcycle manufacturer Zhejiang Huatien for infringing on Yamaha Motors' trade mark. (June 2007) (details at http://english.ipr.gov.cn/ipr/en/info/Article.jsp?a_no=88512&col_no=127&dir=200706) and <http://www.chinacarforums.com/forum/showthread.php?t=2718> (last visited 20 July 2010)

⁷⁵³ CHINT v. SCHNEIDER - Patent Infringement (Sept 2007) Intermediate People's Court on September 26, 2007 ordered defendant SCHNEIDER Electric Low Voltage (Tianjin) Co., Ltd. (SELV) - a joint venture of SCHNEIDER Electric - to pay RMB 330 million in damages to Chinese plaintiff, CHINT, labeling it the "No. 1 Case of Patent Infringement in China". Rarely in China, do awards in patent cases exceed RMB10 million. (to be found at <http://www.chinaipmagazine.com/en/journal-show.asp?id=258>) (Last visited on 7 July 2010)

⁷⁵⁴ This case is currently on appeal. Source "Intellectual Asset Management", January/February 2009. "The truth about China by Joff Wild"

⁷⁵⁵ ABA (AMERICAN BAR ASSOCIATION) International Section, Intellectual Property Committee, Second Quarter - June 30, 2009 Update, CHINA PATENTS, "Schneider chooses to Settle with Chint", by Paul Jones, Jones & Co., Toronto available at http://meetings.abanet.org/webupload/commupload/IC750000/sitesofinterest_files/China.Patents.Y1R.1Q2Q.combined.pdf (Last visited on 21 June 2010)

⁷⁵⁶ See NPE Litigation in the Communications Industry, Monday, February 23rd, 2009 (<http://rpxcorp.com/blog/?tag=patent-litigation-statistics>) (Last visited 20 July 2010)

⁷⁵⁷ Intellectual Asset Management, October/November 2008, "A New Tool for a New Kind of Patent Adversary"

During the same period, NPE⁷⁵⁸ patent litigation against these top US telecommunications companies grew 389 per cent while NPE litigation across all industries increased 92 per cent⁷⁵⁹ (See Table 11 below). This data shows that while the amount of patent litigation in the US increased slightly, the composition of the plaintiffs filing the patent infringement law suits has become increasingly represented by NPEs, especially within particular industries and sectors.

In general, technology licensing as a business model has many benefits. Among others it shortens product development time, allows entry into otherwise protected industries, enhances quality of products and processes, builds competitive advantage, increases sales revenue and expands existing business capabilities.

Table 11: NPE Litigation in the Communications Industry

NPE Patent Litigation in the U.S. Telecom Industry							
Company	2003	2004	2005	2006	2007	2008	2003 - 2008
AT&T	3	10	1	4	19	14	51
% NPE Litigation	33%	40%	100%	50%	84%	86%	71%
Comcast	1	1	6	3	10	3	24
% NPE Litigation	100%	100%	67%	67%	100%	100%	88%
Cox	0	1	3	6	5	4	19
% NPE Litigation	--	100%	33%	67%	100%	50%	68%
MetroPCS	0	0	0	1	1	4	6
% NPE Litigation	--	--	--	100%	100%	100%	100%
Qwest	2	1	2	2	6	2	15
% NPE Litigation	0%	0%	50%	50%	100%	50%	60%
Sprint Nextel	0	0	4	5	16	12	37
% NPE Litigation	--	--	75%	80%	75%	58%	70%
T-Mobile	1	0	4	3	18	7	33
% NPE Litigation	100%	--	50%	67%	89%	86%	82%
Time Warner	3	2	6	9	8	2	30
% NPE Litigation	100%	50%	50%	89%	100%	50%	80%
U.S. Cellular	0	0	1	2	7	2	12
% NPE Litigation	--	--	100%	50%	100%	50%	83%
Verizon	4	6	7	14	19	10	60
% NPE Litigation	75%	100%	71%	57%	89%	70%	77%
TOTAL Patent Litigation	14	21	34	49	109	60	287
% Growth in Patent Litigation		50%	62%	44%	122%	-45%	329%
TOTAL NPE Patent Litigation	9	13	21	33	98	44	218
% Growth in NPE Patent Litigation		44%	62%	57%	197%	-55%	389%
TOTAL % NPE Patent Litigation	64%	62%	62%	67%	90%	73%	76%

⁷⁵⁸ Non-Practicing Entities

⁷⁵⁹ PatentFreedom, Intellectual Asset Management

5 Applying IP business models in China and Japan

Technology transfer business models as a form of intellectual property exploitation into any foreign jurisdiction is filled with complexities. There will be challenges due to systems that are not designed in a familiar manner.⁷⁶⁰ This is even more true for Western culture business ventures into Asia where they deal with conflicting mindsets, language differences, different legal systems, culture differences and mostly inadequate intellectual property protection.⁷⁶¹

In the intellectual property context it is essential to understand what the 'importance of culture' actually means.

Culture does not necessarily affect business desires for intellectual property. In Asia, such as in any other jurisdiction, major industries understand that intangible assets have value and they understand that intellectual property law suits have the potential to crush companies.

Since IP is a relatively new concept to many Chinese, foreign companies face an uphill battle to educate employees, partners and government officials to respect IP. Furthermore, due to the commonly held view⁷⁶² that international companies are overly sensitive about IP, companies should not assume that the Chinese counterpart will understand Western definitions of IP or the urgency around its protection. Particularly, businesses planning to operate in the Chinese environment should not assume that it is similar to the environment in the western home. Culture does affect the way people in Asia go about procuring intellectual property. In China that may mean not paying more than lip-service to Western-style legal documentation such as patents and trade marks, and in Japan that may mean making intellectual property internally. Personal contact and tailoring dominate most business decisions and upfront contractual systems are far less trusted.⁷⁶³

⁷⁶⁰ *Supra* Ting Zhang

⁷⁶¹ In a 2007 survey by PricewaterhouseCoopers "Technology Executive Connections: Exploiting Intellectual Property in a Complex World", nearly two thirds of executives interviewed believe that IP protection in emerging markets are inadequate, but that they anticipate a moderate improvement in the quality of IP enforcement in the emerging markets to be viewed at [http://www.pwc.com/extweb/pwcpublications.nsf/docid/F5DBAFA7B3F4501D852570830007AD84/\\$File/tec4ip.pdf](http://www.pwc.com/extweb/pwcpublications.nsf/docid/F5DBAFA7B3F4501D852570830007AD84/$File/tec4ip.pdf) (Last visited on 21 June 2010)

⁷⁶² Intellectual Property Protection. China Playbook. GC1A4U1BP 2008. Corporate Executive Board (GCR)

⁷⁶³ Gathering2.0 Webinar Archives, December 16th Webinar: Creating New Value by Leveraging Intangibles in Major Acquisitions: The Value Creation Approach, by John Tao as can be viewed on <http://www.gathering2.com/COMMUNITYRESOURCES/webinars/webinararchives/tabid/1418/Default.aspx> (Last visited on 21 June 2010)

It is true however that the concept of intellectual property assets as marketable entities has caught on in the North Asia region. People want to use intellectual property to innovate their economies and business models.⁷⁶⁴

The changes in the intellectual property legal framework in both China and Japan are clear indications of this. The change in legal framework spurred off considerable growth in patent applications from the Asian regions. According to the OECD 2008 'Compendium of Patent Statistics', China showed a growth of 33 per cent between 1995 and 2005 with China entering the top fifteen patenting countries in 2005.⁷⁶⁵

6 Business strategies in China and Japan with a view on technology transfer

6.1 China

China is a large emerging market that cannot be overlooked. Many Western companies are keen to enter the Chinese market and develop long-term partnerships with the Chinese.

Two key aspects that need consideration are:

- To know the market and the importance of relationships and speed⁷⁶⁶
- Understand that protecting IP does not only mean in legal terms⁷⁶⁷ but also to take proactive protective strategic and operational action.⁷⁶⁸

McKinsey⁷⁶⁹ depicts protection of IP in China as an IP pyramid (Figure 17). This clearly depicts the importance of protecting and enforcing intellectual property.

It is essential to create a high awareness and sensitivity among employees or business partners regarding intellectual property and to ensure that where intellectual property and security breaches occur, the necessary steps are taken to prosecute violators. It is also necessary to implement audit programmes to ensure compliance.

⁷⁶⁴ "Inside the Intellectual Property Markets of North Asia", by Sachin Desai, *Intellectual Asset Management* October/November 2008, pp57-62

⁷⁶⁵ Asian PCT filings have also increased. Japan represented 8% of all PCT applications filed in 2005. Among the emerging countries filed the most applications. It is also interesting to see that China (3rd) outranks Japan (6th) on the countries that files the most applications in new technologies such as Information and Communications technologies, see <http://www.oecd.org/dataoecd/5/19/37569377.pdf> (Last visited on 21 June 2010)

⁷⁶⁶ Managers of Successful companies in China often make decisions that get products to the market before its competitors – see examples in "The logic of Chinese Business strategy: East vs West: Part II by Haley et al; Vol 27 No 2, 2006, pp43-53, Emerald Group Publishing Limited, ISSN 0275-6668, "journal of Business Strategy

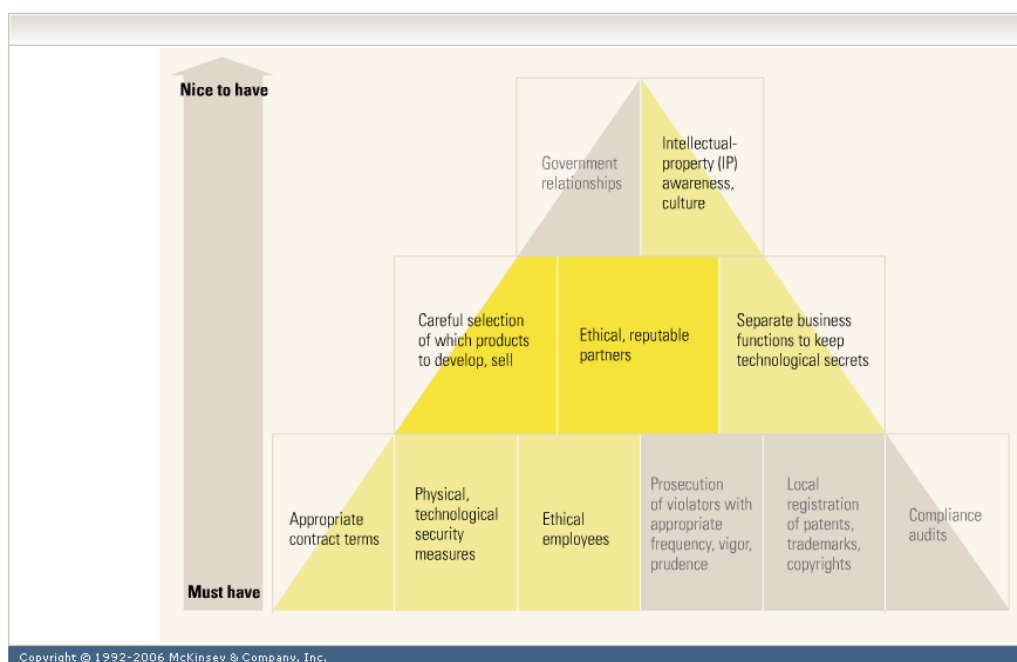
⁷⁶⁷ General Counsel Roundtable – "China Playbook Chapters on Intellectual Property", April 2008, "Use more proactive approaches to protect IP such as limiting exposure of intellectual assets, educate employees." Available to members at <https://grc.executiveboard.com/Members/ResearchAndTools/Abstract.aspx?cid=1000708> (Last visited 21 June 2010)

⁷⁶⁸ "Protecting Intellectual property in China – Litigation is no substitute for strategy" by M Dietz, Shao-Tin Lin and Lei Yang. McKinsey Quarterly 2005, Number 3.

⁷⁶⁹ *Supra* M Dietz *et al*

Figure 17:

Protecting **intellectual property** in China



The European Intellectual Property Help desk on Chinese business⁷⁷⁰ provides a few helpful tips for consideration in technology transfer into China:

a) Joint Ventures

- In certain industry sectors, forming joint ventures with local Chinese companies is compulsory in order to gain access to the market.
- As such it is important to conduct a detailed due diligence of a potential Chinese partner looking specifically at business goals, government involvement and positioning of similar companies in the specific industry.
- Ensure that the partner clearly understands (in writing) the extent and scope of technology transfer⁷⁷¹ including future improvements and ownership and user rights.
- During Joint Ventures (JVs) as well as on termination of any co-operation, companies need to always aim for a majority Western shareholding (i.e. 51 per cent at least). Once in the JV, monitor unusual frequent personnel changes.
- Oblige Chinese partner (and other contracting parties) to comply with all administrative rules for technology import and export.

⁷⁷⁰ The China IPR SME helpdesk, project funded by the European Union, provide many helpful guidelines on how to manage IP Rights in technology transfer into China. The site also hosts many case studies on IP business models and IP investment and protection by foreigners into China. The following items listed is an extracted summary of the booklet "Technology Transfer to China: Guidance for business" to be viewed under the License section on <http://www.china-iprhelpdesk.eu/>

⁷⁷¹ Where possible rather grant licenses to JV than transferring ownership in rights

b) Other forms of localism

- In some industry sectors it is required to set up a local (Chinese) R&D centre, or other formats for transfer of know-how.
- Participation in public tenders require foreign companies to have local production (in some industries this could be as high as 80 per cent).
- Obtain local experienced IP and general legal counsel.

c) Contracts

- Ensure confidentiality agreements are in place before dealing with Chinese partners and ensure that these are legally binding and enforceable under Chinese Law.
- Contracts should preferably be prepared and signed in both Mandarin and English.
- Public contracts: offer mature technology; licensing contracts to be for limited technology, limited period of time for defined projects, and include mechanisms for withdrawing rights to use products or processes if the rights are abused.
- Compulsory certification of products in certain industries in addition to the requirements for licensing.
- Ensure that royalty payments are an enforceable obligation in the contract and limit the right to grant sub-licenses.

d) Protection mechanisms for IP

- Set up headquarters in an environment that is secure⁷⁷² (as an example, Hong Kong as it has the infrastructure and culture to protect IP).
- Ensure you have appropriate IP Right protection in China (and Hong Kong) as well as in jurisdictions of export for products from China.⁷⁷³
- If assembly line⁷⁷⁴ or manufacturing site to be set up, rent own premises where employees must remain and have different sites (segmentation of work⁷⁷⁵) for the different components, for example an assembly line.
- Communicate know-how, documents, customer relations, designs, strategies, updated plans, etc. strictly on a need-to-know basis.
- Use codified and password protected emails, if at all, and mark all confidential information clearly as such on each page.

⁷⁷² See "Protecting the Company Jewels in an unprotected Country" by William Holstein, 7 March 2007, a Booz Allen Hamilton Inc publication to be viewed at http://www.strategy-business.com/media/file/leading_ideas-20070703.pdf (Last visited on 21 June 2010)

⁷⁷³ This is important where IP stolen in China cannot be enforced in China, Western companies can take legal action in other countries if the stolen IP are used in these other countries

⁷⁷⁴ It is advisable that integration of overall systems or technology take place in-house

⁷⁷⁵ *Supra* China Playbook GCR

- Keep electronic records on national (Western site) NOT in China.
- Sensitise and train employees to understand that unauthorised disclosure of technology and IPR can hurt the company and jeopardise their employment.
- Ensure employee contracts contain appropriate non-compete as well as non-solicitation clauses that are also enforceable under Chinese Law.
- Restrict physical access to sensitive working sections.
- Where possible, have your own team on site, specialised in know-how protection and Chinese law.
- Carry out regular audits on compliance with contractual obligations and IPR leakage, including access security systems; actively follow up on detected breaches.
- Screen visitors to R&D and operational sites in Western jurisdictions.

e) Control product samples

- Enforce code of conduct for Chinese employees, creating a climate where there is a system for tracking flow of information (e.g. tracking outgoing emails that contain any reference to piracy).
- Annual reminders and follow-up with individual employees re IP obligations and confidentiality.
- Stern action to be taken if employees break the rules.

f) Enforce IP

- Make use of procedures for enforcement in China (the proper strategy as to the options to elect, depends on the particular industry. In general, civil proceedings as opposed to the administrative process are the better process for enforcement).⁷⁷⁶
- Know what is required to prove infringement.⁷⁷⁷
- Understand the implications of the Patent Re-examination Board (PRB) in infringement proceedings.⁷⁷⁸

⁷⁷⁶ "Develop your China enforcement strategy" Managing IP Magazine, Dec 2007/January 2008 – "Enforcement in China" pp48 - 54

⁷⁷⁷ The Chinese legal system has very specific standards of proof and documentation of allegations of piracy

⁷⁷⁸ In some recent cases some Chinese courts have decided to suspend the case to await the PRB decision (HW Wenhui – deputy director-general of SIPO PRB)

6.2 Japan

Japanese firms use their intellectual property⁷⁷⁹ as a key component of its economic growth and inspire others in Asia to buy IP. They dominate the domestic market. Looking at the patent statistics it is a mature intellectual property regime but a closed book to non-Asians.⁷⁸⁰ Technology licensing enabled Japan to become one of the world's most technological advanced nations.⁷⁸¹ Although Japan produces high volumes of patents,⁷⁸² most are concentrated in the hands of large Japanese corporations and this makes it harder for potential licensors to get their foot in the door, especially given the difficulties the Japanese closed hierarchical culture presents.⁷⁸³ It is advised that the country be entered through respected Japanese third party IP-brokers who have a history in the country. A further approach for foreigners to enter the Japanese markets is through strategic alliances.

7 Strategic view on IP business models

There will be an increased demand for an IP business model and strategy approach which represents a fundamental shift from merely protecting IP through legal means, to holistically cultivating and preserving value (i.e. resisting IP value erosion) through higher-level business strategies.

It is known in particular that China has drawn significant attention in the past few years in view of it being perceived as a high-risk IP environment. It is well-documented that various forms of IP misappropriation are widespread in China. (Historically, China has a low regard for the concept of private property rights and has a public interest focus.) The mixed motives of Chinese courts and law enforcement entities often result in outcomes unexpectedly adverse to the rights of IP owners. Although China has created IP laws that generally adhere to international standards, poor enforcement continues to frustrate the efforts of companies to protect their IP in China.

⁷⁷⁹ Article on Japan Intellectual Property Association (<http://www.jipa.or.jp/english/index.html>) Intellectual Property, key to economic survival, success, Japan Times, by Taknake, see <http://www.jipa.or.jp/english/topics/pdf/JT090417.pdf>

⁷⁸⁰ Sources used 2007 CIA World Factbook, USPTO 2007 Patent Grant Data; also see OECD Compendium of Patent statistics "Trends in National Patenting", p32

⁷⁸¹ Les Nouvelles. December 2008 issue, "Licenses as critical source of innovation, Part I, Theory and Japan" by Victor Braun.

⁷⁸² OECD COMPENDIUM OF PATENT STATISTICS <http://www.oecd.org/dataoecd/5/19/37569377.pdf> (Last visited on 20 July 2010)

⁷⁸³ Intellectual Asset Management, October/November 2009 – "Inside the IP Markets of North Asia by Sachin Desai

It was noted earlier⁷⁸⁴ that China and Japan signed a memorandum and established for the first time a working group to protect intellectual property rights. *‘The MOU for Intellectual Property Protection Exchanges and Cooperation and the working group are aimed to create a legal framework to enforce crackdowns on violations of intellectual property rights. The working group will focus on information sharing of laws and regulations with regards to IPR, as well as the experience in the law enforcement. The memorandum signed by Chen and Toshihiro Nikai, Japanese minister of economy, trade and industry, stipulates that the intellectual property working group meet once a year. Nikai asked that the working group convene its first meeting by the end of the year.’*⁷⁸⁵

It is envisaged that the 2 countries would share best practises in terms of intellectual property right protection and that the more advanced Japanese intellectual property culture would enable quick implementation of tested methods in China and provide more secure investment for Western businesses in China.

8 Conclusion

Effective business models for production, protection and exploitation of IP in new and/or emerging markets are essential. Consideration of the business culture is important in defining and understanding the market culture.

⁷⁸⁴ See the Ministry of Economy, Trade and Industry of China (translated website), published June 2009, on http://www.meti.go.jp/english/press/data/20090608_01.html (Last visited on 20 July 2010)

⁷⁸⁵ from People's Daily on Mon, Jun 08 2009, to be viewed at <http://english.people.com.cn/90001/90776/90883/6673407.html>; and http://english.ipr.gov.cn/ipr/en/info/Article.jsp?a_no=282599&col_no=925&dir=200906 (Last visited on 21 June 2010)

CHAPTER VI – SURVEY RESULTS – CORPORATION INTELLECTUAL PROPERTY STRATEGIES – COMPARISON OF ACTIVITY IN JAPAN AND CHINA AS OPPOSED TO EUROPE AND USA

1 Introduction

The East, and in particularly China, has been an attractive business environment and more so to Western ‘society’ during the last few years. Initially the cheap labour available in the East has meant that Western companies have striven to invest to ensure that products (often designed in Western countries) are manufactured in factories based in Asian countries. This has meant that the infrastructure for manufacturing is available in the East before any innovation is even considered.

Despite the substantial potential advantages associated with tapping into a global market for Research and Development (R&D) talent and location (such as cost, cycle time reductions, and regional market advantage), companies experience difficulty protecting intellectual assets in developing regions such as China. Due to the high probability of theft of IP and lessened avenues for legal recourse compared to developed countries, a different strategic approach is required. Companies have reported hefty deficits due in part to cultural bias against corporate ownership of property, and the varying effectiveness of legal mechanisms for litigation stemming from rampant product piracy and staff retention difficulties.

Given these challenges, some R&D organisations have shifted focus from traditional legal IP protection to strategies for increasing employee loyalty, protecting documented process and product designs, and prioritising resource allocation towards the organisation’s most valuable and defensible technologies.

With the rise of globalisation, companies that fail to effectively plan for the protection of intellectual assets in emerging markets, risk losing competitive advantage from important product and process designs falling into the hands of thieves and competitors. Losses in emerging markets however require separate consideration because of the high probability.

As was stated in Chapter V, there will be an increased demand for an IP business model and strategic approach which represents a fundamental shift from merely protecting IP through legal means, to holistically cultivating and preserving value (i.e. resisting IP value erosion) through higher-level business strategies.

Protection of intellectual property remains extremely important to foreign companies contemplating business in China, and to China's own efforts to promote the rule of law as a means to spur economic development. China's accession to the World Trade Organization (WTO) on commercially viable terms requires WTO standards for protecting IPR. As was discussed in earlier Chapters, in the mid-1990s the Chinese government launched a major effort to expand its administrative capabilities to protect intellectual property. Legal and economic institutions (e.g., courts and markets), however, could be more sustainable sources for the development of a sound IPR regime in China.⁷⁸⁶

A survey was undertaken whereby companies in the technology⁷⁸⁷ industries were requested to disclose their strategies with regards to IP management and business models in Asia, as opposed to the IP management and business models they would apply in the West, e.g. Europe or the USA. Initially the survey was intended to be conducted on a much broader basis using an independent consulting firm. However, due to lack of funds and inability to find a sponsor for the work in the current economic pressure, the researcher has been unable to do so.

2 Survey

2.1 Survey Objective

To obtain best practice data from selected Chemicals and Petrochemicals companies regarding their IP Strategy business Models in China and Japan. The survey used in the research is attached per Annexure 9 and results in Annexure 10.

⁷⁸⁶ See VOLUME 10, NUMBER 2, APRIL 1999, NBR ANALYSIS, Intellectual Property Rights in China: Evolving Business and Legal Frameworks, The Global Electronics Revolution and China's Technology Policy by Barry Naughton, Private Enforcement of Intellectual Property Rights in China by- Donald Clarke to be viewed here <http://www.nbr.org/publications/issue.aspx?ID=56> (Last visited on 20 July 2010)

⁷⁸⁷ The study was limited to technology based companies and did not extend to trade mark and domain name bases strategies, unless incidental to the technology exploitation model of the particular business sector. This was specifically in support of my thesis that focuses IP in the technology context.

2.2 Confidentiality

As the information required in completing the survey is potentially sensitive and confidential, many of the responses were received via the General Counsel Round-table on an anonymous basis. There were some direct responses received for which confidentiality is to be maintained.

2.3 Scope of Survey

The survey was sent out to thirty participants in high technology, manufacturing and chemical industries. Only 50 per cent of the anticipated participants responded.

Of the participants only 4 completed the full questionnaire whereas eleven responded via the General Counsel Round Table⁷⁸⁸ to a simplified set of 3 questions, i.e.:

- 2.3.1 For those who deal with IP issues in East Asia, how does your IP protection strategy differ from country to country (e.g., Singapore v. Japan v. China)?
- 2.3.2 Does your overall East Asian IP strategy differ greatly to your protection strategies for the US or Europe?
- 2.3.3 When managing your IP in foreign countries, do you find language to be a barrier? If so, how big of a barrier is it and how have you overcome it?

Most of the participants were of the opinion that the questionnaire would reveal core strategies which they were not prepared to disclose. Some research was conducted on the internet to identify general strategy disclosures by corporations. This is summarised in the final paragraph to this chapter.

⁷⁸⁸ Survey request sent on 21 June 2007, result set received 19 Dec 2007 – see <https://gcr.executiveboard.com/Members/EPN/Blogs/Abstract.aspx?cod100052287> (Last visited on 20 July 2010) repeated per Annexure 11.

2.4 Results summary

From the results it is interesting that although most of the businesses indicated that they have different intellectual property strategies for China and Japan than for US and EPO, almost 40 per cent of the participants indicated that their intellectual property strategies do not differ from East to West; rather that the strategy depends on the type of technology and intellectual property for which they seek protection. Most of the participants mentioned the experience of lack of proper enforcement, of intellectual property rights in China. Of the 4 participants that completed the full questionnaire, the participants are mostly of the opinion that IP matters are changing in China and that the 'space' is being watched, in particular to see the practicality of WIPO and US pressure. Many of the participants had an in-country manager with IP experience. A few participants had an in-house Chinese lawyer that represents their interests and manages Chinese IP external lawyers.

Quite a number of the participants indicated that cost is a consideration as translation into Chinese and Japanese is costly. Inadequate translation however results in scope changes. Some of the participants indicated that utility model applications are preferred over patents. This is particularly true for the manufacturing industry.

Self-protection is one of the costs of IP proliferation on a global scale. Lack of awareness and complacency to protect own IP assets are frequently overlooked. A very effective way to protect IP is the monitoring of global distribution channels. This is far more cost effective than legal or judicial mandates. Most participants indicate that an awareness of competitor activity with regards to infringement of IP is essential in ensuring that the business IP is sufficiently protected and not abused.

In relation to the language barrier question, some of the participants advised that they have in-country intellectual property legal managers that were of Asian culture and background and as such did not find language a barrier. Other participants found language to be a barrier, both in defining the intellectual property as well as properly protecting it, as some intellectual property may be 'lost in translation'.

2.5 Summary of business models applied

2.5.1 Research from the General Counsel Round Table

The Research and Technology Executive Council published the table⁷⁸⁹ below as a guideline to certain company profiles that they have included in a study conducted on the challenges to IP protections in emerging markets.

Table 12: Challenges in protecting IP in China for businesses

		Profiles							
		Tinklen's Global Community	Tinklen's Distribution Channel Control	Alpha's Core Technology Identification	Beta's Next-Gen Know Database and Schematics	Alpha's Product Development Blackbox	Gamma's Patent Prioritization Process	Tinklen's Warranty Hologram	Beta's Embedded Authentication
Challenges Addressed	Increasing Employee Retention	3							
	Maintaining a Secure Distribution Network		3		2			2	
	Managing Peer and Customer Relationships		3						
	Distinguishing Between Sensitive and non-Sensitive Technology			3	2	1			
	Staying Ahead of the Competition		1				1		
	Protecting Product Designs			3	3	3	2		
	Confirming Product Authenticity and Embedding Anti-Piracy							3	3
Industry Applications	High Tech., Software and Telecom.	3	3	3	3	3	3	3	3
	Services	3			1		1		
	Manufacturing/ Diversified	3	3	2	2		3	3	
	Pharmaceuticals and Biotechnology	3	3		3	3	3		
	Chemicals and Materials	3		2	3	3	2		
	Consumer and Retail Products	2		1	1		3		
	Energy, Metals, and Mining	3	3		1		2		
	Health Products and Services	3	3		3	3	3	3	3

Source: Council Research.

An overall summary of internet research⁷⁹⁰ in strategy models of companies defined the following main areas of protection.

⁷⁸⁹ THE RESEARCH AND TECHNOLOGY EXECUTIVE COUNCIL™, DECEMBER 2005, "Approaches to IP Protection in Emerging Markets"

⁷⁹⁰ See Annex for list of sources

2.5.2 Employee retention initiatives to prevent IP losses

A number of companies have developed and implemented incentives to ensure retention of key employees, contractors and distributors. Incentives often extend to inventors of key and important patents to the organisation. The importance of confidentiality and assignment of confidentiality undertakings by all employees are key.

2.5.3 Appropriate mechanisms for protection of sensitive and proprietary information

Various companies make use of the strategy to 'split' the technology and protect IP in sensitive phases of development using a 'black box approach' in projects where collaboration is unavoidable. This entails protecting intangible assets by providing information access only to essential personnel and only on a need-to-know basis. An example is the Airbus technology where assembly of their full aircrafts is done in China, but all components of the Airbus are manufactured and assembled outside of China and imported into China. Another example is on chemical plants where catalyst manufacturing is separated from the actual chemical plant, using the catalyst to prevent the possibility of unauthorised reproduction of the methods and processes of manufacture of the catalyst.

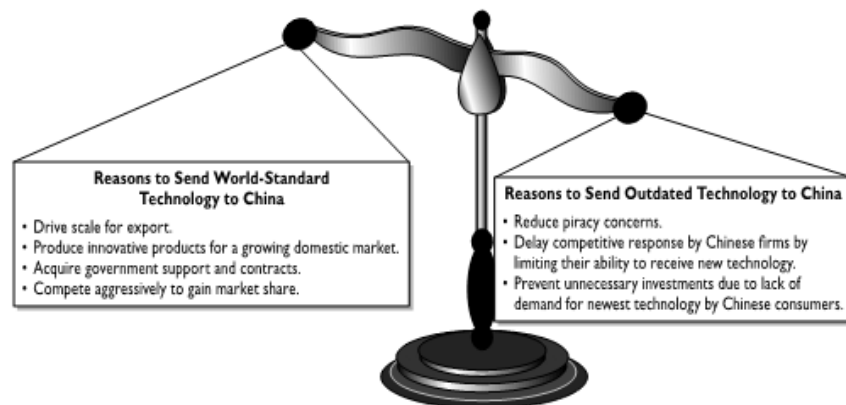
3 Strategic business approach - Alignment of market opportunities with patent portfolio

Companies generally seem to understand and follow the strategy of alignment of intellectual property and in particular, patent strategy decisions with the market potential of products. By mapping viable market concepts to the patent portfolio, companies determine whether to seek new patents and conduct development activities in developing regions, or simply to customise existing patent portfolios to meet regional consumer need. Additionally, regular evaluations of potential, current, and unused patents are essential to maintain appropriate legal protections while keeping maintenance costs contained.

4 Continual review and update IP protection measures

As technology advances, thieves and counterfeiters discover new ways to thwart protective measures and illegally duplicate IP. Companies seem to understand the need for a regular review and update of protection mechanisms and subject matter to maintain effectiveness.

Source⁷⁹¹



...often results in trading short-term sales for long-term competition

5 Conclusion

An increasing amount of Western businesses are experiencing better protection of its IP assets in China and a move towards harmonisation of Western IP systems in both China and Japan.

However, there are the views that Japan is a more IP advanced environment as it provides a well established patent law system, and a sufficient number of sophisticated lawyers and judges trained to handle IP matters. Enforcement is fair and relatively prompt and both domestic and international companies are treated fairly in these proceedings. China, on the other hand, is still developing its rule of law, and enforcement appears to be lagging behind other countries. There is a sense that in many instances it is simply not possible to prevent IP infringement in China. Companies continue to bring intellectual property into the country only because they cannot ignore the potential commercial benefits of doing business there.

The general survey result concludes that self-monitoring of global distribution channels is a cost effective means of protection and far less costly than legal or judicial mandates. This is so regardless of the region in which to protect IP.

I conclude with this quote:

Nothing to Lose but Everything

"When we entered China, we hemorrhaged large amounts of money for a long time. I would recommend our old strategy of doing nothing to protect our intellectual property only to my competitors. We now rigorously guard our processes for product design, because if we lose these, we have lost almost everything."²

Sal Miraglia, Corporate Technology Officer, Timken

⁷⁹¹ GC1A4U1BP © 2008 Corporate Executive Board. China Playbook "Difficulty in deciding about technology transfer to China...", Page 9

ANNEXURES

Annexure 1 - WTO member assigned to TRIPS¹

Albania 8 September 2000
Angola 23 November 1996
Antigua and Barbuda 1 January 1995
Argentina 1 January 1995
Armenia 5 February 2003
Australia 1 January 1995
Austria 1 January 1995
Bahrain, Kingdom of 1 January 1995
Bangladesh 1 January 1995
Barbados 1 January 1995
Belgium 1 January 1995
Belize 1 January 1995
Benin 22 February 1996
Bolivia 12 September 1995
Botswana 31 May 1995
Brazil 1 January 1995
Brunei Darussalam 1 January 1995
Bulgaria 1 December 1996
Burkina Faso 3 June 1995
Burundi 23 July 1995
Cambodia 13 October 2004
Cameroon 13 December 1995
Canada 1 January 1995
Central African Republic 31 May 1995
Chad 19 October 1996
Chile 1 January 1995
China 11 December 2001
Colombia 30 April 1995
Congo 27 March 1997
Costa Rica 1 January 1995
Côte d'Ivoire 1 January 1995

¹ Source http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm (Last visited on 17 June 2010)

Croatia 30 November 2000
Cuba 20 April 1995
Cyprus 30 July 1995
Czech Republic 1 January 1995
Democratic Republic of the Congo 1 January 1997
Denmark 1 January 1995
Djibouti 31 May 1995
Dominica 1 January 1995
Dominican Republic 9 March 1995
Ecuador 21 January 1996
Egypt 30 June 1995
El Salvador 7 May 1995
Estonia 13 November 1999
European Communities 1 January 1995
Fiji 14 January 1996
Finland 1 January 1995
Former Yugoslav Republic of Macedonia (FYROM) 4 April 2003
France 1 January 1995
Gabon 1 January 1995
The Gambia 23 October 1996
Georgia 14 June 2000
Germany 1 January 1995
Ghana 1 January 1995
Greece 1 January 1995
Grenada 22 February 1996
Guatemala 21 July 1995
Guinea 25 October 1995
Guinea Bissau 31 May 1995
Guyana 1 January 1995
Haiti 30 January 1996
Honduras 1 January 1995
Hong Kong, China 1 January 1995
Hungary 1 January 1995
Iceland 1 January 1995

India 1 January 1995
Indonesia 1 January 1995
Ireland 1 January 1995
Israel 21 April 1995
Italy 1 January 1995
Jamaica 9 March 1995
Japan 1 January 1995
Jordan 11 April 2000
Kenya 1 January 1995
Korea, Republic of 1 January 1995
Kuwait 1 January 1995
Kyrgyz Republic 20 December 1998
Latvia 10 February 1999
Lesotho 31 May 1995
Liechtenstein 1 September 1995
Lithuania 31 May 2001
Luxembourg 1 January 1995
Macao, China 1 January 1995
Madagascar 17 November 1995
Malawi 31 May 1995
Malaysia 1 January 1995
Maldives 31 May 1995
Mali 31 May 1995
Malta 1 January 1995
Mauritania 31 May 1995
Mauritius 1 January 1995
Mexico 1 January 1995
Moldova 26 July 2001
Mongolia 29 January 1997
Morocco 1 January 1995
Mozambique 26 August 1995
Myanmar 1 January 1995
Namibia 1 January 1995
Nepal 23 April 2004

Netherlands —1 January 1995
New Zealand 1 January 1995
Nicaragua 3 September 1995
Niger 13 December 1996
Nigeria 1 January 1995
Norway 1 January 1995
Oman 9 November 2000
Pakistan 1 January 1995
Panama 6 September 1997
Papua New Guinea 9 June 1996
Paraguay 1 January 1995
Peru 1 January 1995
Philippines 1 January 1995
Poland 1 July 1995
Portugal 1 January 1995
Qatar 13 January 1996
Romania 1 January 1995
Rwanda 22 May 1996
Saint Kitts and Nevis 21 February 1996
Saint Lucia 1 January 1995
Saint Vincent & the Grenadines 1 January 1995
Saudi Arabia 11 December 2005
Senegal 1 January 1995
Sierra Leone 23 July 1995
Singapore 1 January 1995
Slovak Republic 1 January 1995
Slovenia 30 July 1995
Solomon Islands 26 July 1996
South Africa 1 January 1995
Spain 1 January 1995
Sri Lanka 1 January 1995
Suriname 1 January 1995
Swaziland 1 January 1995
Sweden 1 January 1995

Switzerland 1 July 1995
Chinese Taipei 1 January 2002
Tanzania 1 January 1995
Thailand 1 January 1995
Togo 31 May 1995
Tonga 27 July 2007
Trinidad and Tobago 1 March 1995
Tunisia 29 March 1995
Turkey 26 March 1995
Uganda 1 January 1995
Ukraine 16 May 2008
United Arab Emirates 10 April 1996
United Kingdom 1 January 1995
United States of America 1 January 1995
Uruguay 1 January 1995
Venezuela (Bolivarian Republic of) 1 January 1995
Viet Nam 11 January 2007
Zambia 1 January 1995
Zimbabwe 5 March 1995

Annexure 2 - Chinese Intellectual Property Legislation

Chinese IP legislation involves almost all aspects set out in TRIPS, e.g. patent, copyright, trade mark, trade secret, geographical indication, unfair competition, software, IC, plant varieties etc. Below is a lists of extended laws under some of the rights that are protected.

Copyright

The PRC Copyright Law (2nd Revision) (Copyright Law) promulgated on February 26 2010 came into force on 1 April 2010. Although the amendments first appear to be relatively minor and short, there are two amendments worth noting. The amended Article 4 seeks to clarify some fundamental principles in protecting copyright in the PRC, and the addition of Article twenty-six updates the rules governing registration of a pledge of copyright. The earlier Article 4 provided that: *'Works that are prohibited from publication or dissemination by the law should not be protected by this Law. Enforcement of copyright by the copyright owner shall not violate the constitution or law or prejudice the public interest.'*

After years of development and beta-testing, the China online copyright registration system, administered by the China Copyright Protection Centre ("CCPC") came into operation on 2 March 2009. The aim is to streamline and clarify the copyright registration system in China.

Although registration is not a prerequisite to copyright protection in China (China is a party to the Berne Convention), a copyright registration can serve as *prima facie* evidence of copyright ownership in a dispute.

Registerable Works

Under the *Copyright Law of China*, the following works may be registered as copyright protected works:

1. written works;
2. oral works;
3. musical, dramatic, quyi* and choreographic works;
4. works of fine art and photographic works;

5. cinematographic, television and video graphic works;
6. drawings of engineering designs and product designs, and descriptions thereof;
7. maps, sketches and other graphic works;
8. computer software;
9. Other works as provided for in laws and administrative regulations.

* 'Quyi' refers to traditional art forms such as ballad singing, story-telling and comic dialogues.

The following may not be registered as copyright protected works:

1. Works prohibited from publication or dissemination;
2. Laws, Regulations, Decisions, Judgements, Orders of National Authorities, other documents relating to the promulgation of laws, administration and the judiciary, and other official translations;
3. News;
4. Calendars, mathematical lists of general use, forms of general use and formulas;
5. Works where the copyright protection period has lapsed.

Online Procedure

Applicants can login to the www.ccopyright.com.cn website and complete an online copyright registration application form. The website is in Chinese only and users will be required to apply for a username and password. The completed application form should be printed and forwarded to the CCPC along with the following documents as stated on the website:

1. Proof of identity of the applicant;
2. Proof of copyright ownership;
3. Instruction manual;
4. Sample of the protected work;
5. Power of Attorney; and
6. Proof of identity of the agent.

Applications will be assigned a serial number upon submission of the online application form and applicants can keep track of the status of the applications online.

Generally, a registration should be completed within 30-120 working days from the receipt of the application. For simple cases, the registration may be completed within 30 working days. In cases where further supporting materials are required, the CCPC will inform the applicant upon receipt of the application and the applicant will need to supplement the required materials within 2 months. The CCPC will then complete the copyright registration within another 30 working days upon receipt of the required materials. Other laws of relevance to copyright protection in China:

- Regulations for Implementation of the Copyright Law of the People's Republic of China - 2002
- Amended Copyright Law of the People's Republic of China - 2001
- Interim Measures for the Administration of Foreign-Related Copyright Agencies - 1996
- Provisions on the Implementation of the International Copyright Treaties - 1992
- Regulations for the Implementation of the Copyright Law of the People's Republic of China - 1991
- Copyright Law of People's Republic of China - 1990
- Interpretation by the Supreme People's Court of Several Issues Relating to the Application of Law in Adjudication of Cases of Civil Disputes over Domain Names on Computer Network - 2001
- Measures for the Registration of Computer Software Copyright - 2002
- PRC Registration of Copyright in Computer Software
- Regulation for Computer Software Protection
- Regulations on the Protection of Computer Software - 2002
- Regulations for the Protection of Computer Software - 1991
- Reply of the Supreme People's Court on Whether a Party of Foreign Nationality to a Copyright Controversy over Computer Software Shall Commission a Chinese Lawyer for His Representative Action - 1994
- Several Guiding Opinions of Beijing Municipal Higher People's Court Relating to the Hearing of Civil Disputes over Intellectual Property Arising from Registration and Use of Domain Names - 2000

Trade marks

The current Trade mark Law came into effect in October 2001, with implementing regulations taking effect on 15 September 2002. The new Trade mark Law extended registration to collective marks, certification marks and three-dimensional symbols, as required by TRIPS. The trade mark law is now undergoing a third amendment process². Unlike the Chinese Patent Law, the Third Amendment draft is still under discussion. One of the most important questions is whether to abolish the substantive examination on relative grounds or not. The main reason for abolishing it is to accelerate the process of trade mark registration in order to reduce the overload work of the Chinese Trade Mark Office (CTMO); however, trade mark examination period has increased from 12 months to more than 24 months. This is due to a rapid increase in trade mark applications. Up to the end of 2006, the number of trade mark applications had reached 4.98 million. The number of trade mark registrations issued has reached 2.77 million. It may now take more time to obtain trade mark registrations than patent grants. China has pre-grant opposition for trade marks. Thus, if an opposition is filed with the CTMO on a provisionally approved trade mark application, two or three more years will be needed before the opposition is decided. The opposition can be appealed, which may take another three years. The abolition of substantive examination and pre-grant opposition, if finally adopted, will shorten the examination period.

China joined the Madrid Protocol in 1989, which requires reciprocal trade mark registration for member countries, which now include the United States. China has a 'first-to-file' system that requires no evidence of prior use or ownership, leaving registration of popular foreign marks open to third parties. It is advisable for non-Chinese companies seeking to distribute their products in China are advised to register their marks and/or logos with the China Trade mark Office. Also, foreign companies should register appropriate Internet domain names and Chinese language versions of their trade marks. When registering marks in China, the services of approved Chinese agents, when submitting the trade mark application, must be used. Recent amendments to the Implementing Regulations of the Trade mark Law allow local branches or subsidiaries of foreign companies to register trade marks directly without use of a Chinese agent.

² SUPPLEMENT - CHINA IP FOCUS 2008 6TH EDITION Making progress, 01 Apr 2008, Dr Lulin Gao and Dr Singer John Huang of East IP assess China's ability to accommodate international developments in intellectual property and trade marks which can be found at <http://www.managingip.com/Popups/PrintArticle.aspx?ArticleID=1915141&issueID=>

Some of the laws implemented in China and relating to governance of trade marks include:

- Stipulations for Recognition and Protection of Well-Known Trade marks - 2003
- Policy for the Implementation of International Registration of Marks under Madrid Agreement - 2003
- Policy for the Registration and Administration of Collective Marks and Certification Marks - 2003
- Rules for Trade mark Review and Adjudication - 2002
- Interpretation Relating to Jurisdiction over and Scope of Application of Law to the Hearing of Trade mark Cases - 2002
- Policy for the Registration and Administration of Collective Marks and Certification Marks - 2003
- Interpretation Relating to Application of Law to Pre-trial Suspension of Acts of Infringement of Exclusive Right to Use Trade mark and to Evidence Preservation - 2002
- Interpretation on Issues Regarding the Application of Law in Civil Cases Involving Trade mark Disputes, Issued by The Supreme People's Court - 2002
- Implementing Regulations under the Trade mark Law of the People's Republic of China - 2002
- Supreme People's Court's Explanation On People's Court's Injunctive Relief Towards Registered Trade mark Right - 2001
- Amended Trade marks Law of the People's Republic of China - 2001
- Implementing Rules of the Trade mark Law of the People's Republic of China - 1995
- Regulations Concerning the Administration on Trade marks in Foreign Trade - 1995
- Procedures for the Registration and Administration of Collective Marks and Certification Marks - 1994
- Implementing Regulations for the Trade mark Law of the People's Republic of China - 1993
- Supplementary Provisions Concerning the Punishment of Crimes of Counterfeiting Registered Trade marks - 1993
- Trade mark Law of the People's Republic of China - 1993

- Interim Provisions on Claims for Priority in Applying for Registration of Trade marks - 1985
- Interpretation Relating to Application of Law to Pre-trial Suspension of Acts of Infringement of Exclusive Right to Use Trade mark and to Evidence Preservation - 2002

Patents

- Intellectual Property Industry Standards of the People's Republic of China (Standard for Patent Application Number) - 2003
- Opinions of the MOFTEC and the State Intellectual Property Office on Strengthening the Administration of Patents in Foreign Trade - 2003
- Measures for Administrative Enforcement of Patent - 2001
- Regulations of the People's Republic of China on Recordal of Licensing Contracts for Patent Enforcement - 2001
- Regulations on the Protection of Layout-Designs of Integrated Circuits - 2001
- Rules of Transition on Implementing the Revised Patent Law and the Implementing Regulations - 2001
- Several Provisions of the Supreme People's Court for the Application of Law to Stopping infringement of Patent Right Before Instituting Legal Proceedings - 2001
- Rules for Implementation of the Patent Law of the People's Republic of China - 2001
- No.78 Proclamation of the Patent Office of the People's Republic of China - June 25, 2001
- Transitional Measures for the Implementation of the Revised Patent Law and Its Implementing Regulations - 2001
- Patent Law of the People's Republic of China - 2001
- Provisions for Investigation and Handling of Acts of Passing off Patent - 1999
- Regulations of the People's Republic of China on the Protection of New Varieties of Plants - 1997
- Implementing Regulations for the Patent Law of The People's Republic of China - 1992
- Regulations on Patent Commissioning - 1991

- Notice Concerning Handling of Deposited Micro-Organisms by the Chinese Patent Office - 1990

Law of the PRC against Unfair Competition (“Unfair Competition Law”) ³ (1993)

China's Competition Law⁴ provides some protection for unregistered trade marks, packaging, trade dress and trade secrets. The Fair Trade Bureau under the State Administration for Industry and Commerce (SAIC) is responsible for the interpretation and implementation⁵ of the Anti-unfair Competition Law. SAIC also provides protection of company names. According to the TRIPS Agreement, China is required to protect undisclosed information submitted to Chinese agencies in obtaining regulatory approval for pharmaceutical and chemical entities from disclosure or unfair commercial use. China's State Drug Administration and Ministry of Agriculture oversee the marketing approval of pharmaceuticals and agricultural chemicals, respectively.

The Unfair Competition Law has been updated by various regulations.

These include the *Several Regulations on the Prohibition of Acts of Unfair Competition Involving the Passing-off of a Name, Packaging or Trade Dress Peculiar to Well-known Merchandise*, effective July 6, 1995, and the *Several Regulations on the Prohibition of Acts of Infringement of Trade Secrets*, effective 23 November 1995. There are regulations on licensing imported technology and Customs enforcement of intellectual property rights. China has undertaken to revise intellectual property law to bring the situation into line with the WTO's TRIPs protocol. This will probably also bring about some changes in the intellectual property institutions.

Customs⁶

In addition to SIPO, the Regulation of the People's Republic of China on the Customs Protection of Intellectual Property Rights and the Implementing Measures of Customs for the Protection of Intellectual Property Rights (Customs Measures) may also provide relief for companies that are victims of patent infringement. The Customs Measures contain general rules and guidelines for Customs' role in IPR enforcement.

³ http://www.sipo.gov.cn/sipo_English/flfg/xgflfg/t20020420_34756.htm

⁴ Law of the People's Republic of China Against Unfair Competition - 1993

⁵ <http://beijing.usembassy->

china.org.cn/uploads/images/6koRQt1GbIOZujaZbTTFVg/Trade_Secrets_Protection_in_the_Workplace_in_China.pdf

⁶ <http://www.sccp.org/sccplibary/meetings/February2001/intlprop.doc>

Customs will provide protection for all categories of IPR, including prohibiting the import and export of suspected goods. China customs has indicated in discussions with US government officials that it is reticent to invoke these powers with regard to invention patents because of the inherent difficulty of determining whether the goods at issue actually infringe on a patent. However, a complainant is more likely to get customs protection on design patents.

Regardless, rights holders must first record their intellectual property with the Customs Service and file an allegation that somebody is going to import or export a product in violation of those rights in order for China Customs to begin investigating and possibly to detain suspected goods. A recordation certificate issued by Customs is valid for ten years and renewable. When a rights holder suspects infringing goods are about to enter or exit China, that person may submit a written application to the Chinese Customs service at the affected port in order to stop the import or export of the goods at issue.

- Measures of the General Administration of Customs of the People's Republic of China for the Implementation of the Regulation of the People's Republic of China on the Customs Protection of Intellectual Property Rights - 2004
- Procedures of the Customs of the People's Republic of China on Protection of Intellectual Property Rights - 1995
- Regulations of the People's Republic of China on the Customs Protection of Intellectual Property Rights - 1995

Foreign Import & Export

- Regulations of the People's Republic of China on Technology Import and Export Administration - 2002
- Temporary Restraining Order on Patent Infringement - 2001
- World Intellectual Property Organization Supplemental Rules for Uniform Domain Name Dispute Resolution Policy- 1999
- Regulations on Administrative Protection of Pharmaceuticals - 1992
- Measures for Implementation of the Administrative Punishment of Copyright - 2003

Other Sources of Protection

In October 2003, China launched the China Patent Protection Association. The association, controlled by China's patent authority, the State Intellectual Property Office (SIPO), will "provide legal aid services" to its members when they are involved in major patent disputes, and play a role different from that of judiciary authorities and administrative law enforcement authorities. The association will provide education, training, legal consulting, patent information searches, patent strategy studies and patent "early warning" services so as to enhance the Chinese patent protection awareness and capabilities.

Annexure 3 - Japanese Intellectual Property Legislation

A brief overview of some other (than patent) intellectual property rights⁷ is provided below.

Utility Model System

As far as a system for Utility Models is concerned; the subject of protection of this system is defined only as "utility models relating to the shape of items, their structure or combinations". This is different from the subject of protection in the patent system (for example, a method cannot become a subject for registration in a Utility Model), although the purpose of both systems is identical.

According to Sections 2 and 3 of the Utility Model Law, the subject matter of protection are forms of products, structures, or combinations of related items which were created using creative technological concepts based on natural laws and rules.

Consequently, methods relating to products are not a protected subject as long as they only relate to shapes and forms of products, et cetera.

In addition, a high level of creativity applied to creation of a technological concept is no longer required for protected subjects, although this is required for protected subjects under the Patent Law.

Design System

Section 1 of the Design Law states that the '*The purpose of this Law shall be to encourage the creation of designs by promoting their protection and utilization so as to contribute to the development of industry*'.

Designs represent a quest for a better appearance or external form, resulting in enjoyment which is connected with the use of products so protected.

⁷ Outlined of the Industrial Property Right System, Japan Patent Office, to be found at http://www.jpo.go.jp/cgi/linke.cgi?url=/seido_e/s_gaiyou_e/4houe.htm

Section 2(1) of the Design Law stipulates that 'Design' in terms of this Law means the shape, pattern or color or any combination thereof in an article which produces an aesthetic impression on the sense of sight. Designs are, therefore, inseparable from articles, or products, and structural functions that are not apparent from the external appearance of a product are not to be regarded as protectable under this Law. The basic concept in the Design Law differs from patent and utility model laws in that it is aimed at identifying creations from the aspect of aesthetic impression and extending protection based on this concept.

Trade mark System

Section 1 of the Trade mark Law states that: '*The purpose of this Law shall be to ensure the maintenance of the business reputation of persons using trade marks by protecting trade marks, and thereby to contribute to the development of industry and to protect the interests of consumers*'. Because it goes without saying that consumers benefit from satisfactory economic activities of various companies and other economic entities, a system determining different brands must be created so that consumers can expect a certain level of quality of products or services from certain brands by being able to determine who is the manufacturer of a certain product or provider of a certain service which they come into contact with.

That is why a system of trade marks which is attached/printed on products or used to identify services must be established in order to protect these trade marks because such trade marks indicate a certain specific function of a product or a service identified by a trade mark. The system thus on the one hand protects the interests of the consumer, and on the other hand it also contributes to the development of industries through a design maintaining confidence in the operations of persons using these trade marks for advertising functions or for functions aimed at protecting the quality of products.

According to Section 2 of the Trade mark Law, the subject of protections are letters, figures, or combinations thereof, used to certify produced commercial merchandize, or commercial merchandize of parties to which the use of a trade mark was transferred, or the role which is played by the commercial activity identified by a trade mark or by the

party which is exercising this role. While in the past, parties engaged in the use of trade marks for commercial transactions such as manufacturing of goods, sales, etc., used these trade marks in order to identify the types of commercial products as merchandize manufactured by these parties alone, and only the public acknowledgement of the right to use a commercial product was protected, due to the rapid development in recent years of service products, it was determined that existing legislation for protection of other publicly acknowledged rights relating to other roles was no longer sufficient, and the Trade mark Law (adopted on April 1, 1992) established the same type of protection as the protection which is applied to merchandize for marks used to identify a service in order to provide identification of the same type of service provided by the same provider for persons offering these services in areas such as broadcasting, finances, the restaurant business, etc.

Trade Secrets⁸

The main source of law for the protection of trade secrets is the Prevention of Unfair Competition Act (Law No.14 of 1934) and its 1990 amendment. Trade secrets are defined as production formulae or methods, methods of sales and other technical or commercial information relevant to business activities which are not known to the public and are treated as a secret under Art.1(3). It therefore is essential that a trade secret has an economic value and is treated properly as a secret by the holder.

Six patterns of infringements against trade secrets are also defined, and injunctions for staying or preventing the infringements are available for the holder under Art.1(3). In addition, the holder can require the destruction of items incorporating the trade secret as well as end-products and any equipment used for the infringements Art.1(4). They are also entitled to damages caused by the infringements and other measures to restore their credibility under Art.1-2. But criminal sanctions are not available.

Copyright⁹

The main sources of law regarding copyright are the Copyright Act (Law No.48 of 1970).

⁸ <http://www.patentlens.net/daisy/patentlens/2649.html> (Last visited on 20 June 2010)

⁹ Intellectual Property Protection in JAPAN Prof. Kazuo Iwasaki Nagoya University GSID, http://homepage3.nifty.com/Prof_K_Iwasaki/lawdb/japan/invstmnt/intpp-en.html#PAT (Last visited on 20 June 2010)

Japan is a party to the Berne Convention for the Protection of Literary and Artistic Works, the Universal Copyright Convention, the Rome Convention on the Protection of Performers, Producers of Phonograms and Broadcasting Organization, the Geneva Convention on the Protection of Phonogram Producers from Unlicensed Copying and also the Agreement on trade-related aspects of intellectual property rights (TRIPS).

The definition of works entitled to copyright protection under Art.1(1) includes literary and musical works, maps and drawings, cinematographic works, photographs as well as computer programs under Art.10(1). But copyright protection is not extended to programming languages, rules or algorithms, and semi-conductor circuits' layout is protected by a separate law.

Derivative works, which are defined as a work to be created by translating, arranging musically, modifying, dramatizing, cinematizing or otherwise adapting the original work, are protected independently, but it should not affect the protection of the original work under Art.11.

Edited works are also protected if the selection or arrangement of materials is original under Art.12 (1). Database is protected if the selection or systematic organization of the information is original under Art.12 (2).

The neighbouring rights under the Rome Convention on the Protection of Performers, Producers of Phonograms and Broadcasting Organization are also protected under Arts.91 to 101.

Foreigners' works which were first published in Japan are protected as a work originating in Japan under Art.6. Even works first published abroad could be protected by virtue of international conventions to which Japan is a signatory.

Copyright comes into effect when the work was created, and subsists for fifty years after the death of the author under Art.51. If the author is not known or used a pseudonym, the fifty years starts from the date of its publication. No registration is required.

Customs prohibition¹⁰

The Customs prohibition, which is specific to Japan, is a strong pro-patent measure unsurpassed internationally.

A patent rights holder can request one or more of the regional Customs commissioners to ban the import of patent-infringing products by proving that the infringing products are being imported. If an import ban request is made to Customs, the request is published on the Customs website, and importers of the products in question can express an opinion within five working days. If the importer provides an opinion within this period of time, a hearing is set up, according to the content of the opinion. The patent rights holder and the importer are both present, and Customs hears the arguments. The hearing is usually held within a month of the request being made, and any new assertion at the hearing is disallowed. As a result of the hearing, Customs makes a judgment on whether or not the request will be accepted.

The acceptance of the import ban request signifies the commencement of an examination to decide whether the accused products are infringing the patent, but not to accept or identify the accused products as patent infringing. Once the request is accepted, however, Customs clearance for the products to be imported is suspended until the case is decided by Customs. Consequently, the resulting effect is the same as a ban on the import of the products at issue.

The patent rights holder is able to prepare thoroughly before making a request for an import ban to Customs. In contrast, the importer of the accused products has as little as five working days to prepare a response to the allegations. In addition, a measure equivalent to an import ban is enforced in a little over a month from the initial import ban request.

¹⁰ Patent Enforcement in Japan as Part of a Global Litigation Strategy By Jason S. Shull, Yuko Hara, and Taku Oomori from *Intellectual Property Litigation*, Volume 19, Number 4, Summer 2008 to be found here <http://www.bannerwitcoff.com/articles/Intellectual%20Property%20Litigation%206.08%20JShull%20article.pdf> (Last visited on 20 June 2010)

Annexure 4 - EU States not accepting a national application based on a PCT application

BE	Belgium
CY	Cyprus
FR	France
GR	Greece
IE	Ireland
IT	Italy
LV	Latvia
MC	Monaco
MT	Malta
NL	Netherlands
SI	Slovenia

Annexure 5 - US Intellectual Property Legislation

Copyright

Copyright is a form of protection provided by U.S. law to the authors of "original works of authorship" fixed in any tangible medium of expression¹¹. The manner and medium of fixation are virtually unlimited. Creative expression may be captured in words, numbers, notes, sounds, pictures, or any other graphic or symbolic media. The subject matter of copyright is extremely broad, including literary, dramatic, musical, artistic, audiovisual, and architectural works. Copyright protection is available to both published and unpublished works.

Under the 1976 Copyright Act¹², the copyright owner has the exclusive right to reproduce, adapt, distribute, publicly perform, and publicly display the work. In the case of sound recordings, the copyright has the right to perform the work publicly by means of a digital audio transmission. These exclusive rights are freely transferable, and may be licensed, sold, donated to charity, or bequeathed to your heirs. It is illegal for anyone to violate any of the exclusive rights of the copyright owner. If the copyright owner prevails in an infringement claim, the available remedies include preliminary and permanent injunctions (court orders to stop current or prevent future infringements), impounding, and destroying the infringing articles.

The exclusive rights of the copyright owner, however, are limited in a number of important ways. Under the "fair use" doctrine, which has long been part of U.S. copyright law and was expressly incorporated in the 1976 Copyright Act, a judge may excuse unauthorized uses that may otherwise be infringing. Section 107 of the Copyright Act lists criticism, comment, news reporting, teaching, scholarship, and research as examples of uses that may be eligible for the fair use defense. In other instances, the limitation takes the form of a "compulsory license" under which certain limited uses of copyrighted works are permitted upon payment of specified royalties and compliance with statutory conditions. The Copyright Act also contains a number of statutory limitations covering specific uses for educational, religious, and charitable purposes

¹¹ <http://www.uspto.gov/web/offices/dcom/olia/copyright/copyrightrefresher.htm> (Last visited on 20 June 2010)

¹² <http://www.copyright.gov/title17/> (Last visited on 20 June 2010)

Copyright is secured automatically when the work is created, and a work is "created" when it is fixed in a "copy or a phone record for the first time."

The length of copyright depends on when the work was created, published, and/or registered. Duration also depends on whether the work was created by an individual, more than one individual, or as employee or at the direction of another person or company. For works created by individual authors on or after January 1, 1978, copyright protection begins at the moment of creation and lasts for a period of 70 years after the author's death. In the case of "a joint work" (prepared by two or more authors) the term lasts for 70 years after the last surviving author's death. For works made for hire, and for anonymous and pseudonymous works, copyright protection generally lasts from 95 years from publication or 120 years from creation, whichever is shorter.

For works created before January 1, 1978 (protected under the 1909 Copyright Act), the duration rules are quite different (and much more complex). Duration depends on a number of factors, including whether the work was "published" and whether or not the copyright was renewed. In general, under the 1909 Copyright Act, copyright protection begins with first publication of the work and lasts for a period of 28 years, renewable for an additional term of 28 years, for a total term of protection of 56 years. In 1976, Congress extended the renewal term to 47 years, increasing the total possible term of protection to 75 years. In 1998, Congress again extended the renewal term by an additional 20 years, for total possible term of protection of 95 years from publication¹³.

For works created but not published or registered by January 1, 1978, copyright lasts for a period of 70 years after the author's death (or at least through December 31, 2002). For works published on or before December 31, 2002, the term of copyright lasts through December 31, 2047.

Trade Marks

For trade marks used in commerce, federal trade mark protection is available under the federal trade mark statute, the Lanham Act¹⁴. Many states have trade mark registration statutes that resemble the Lanham Act, and all states protect unregistered trade marks under the common law (no statutory law) of trade marks.

¹³ http://en.wikipedia.org/wiki/United_States_copyright_law (Last visited on 20 June 2010)

¹⁴ <http://www.uspto.gov/web/offices/tac/tmlaw2.pdf> (Last visited on 20 June 2010)

Trade mark protection is available for words, names, symbols, or devices that are capable of distinguishing the owner's goods or services from the goods or services of others. A trade mark that merely describes a class of goods rather than distinguishing the trade mark owner's goods from goods provided by others is not protectable.

A trade mark that resembles a trade mark already in use in the U.S. so closely that it is likely to cause confusion or mistake is not protectable. Geographically descriptive marks—"Idaho" for potatoes grown in Idaho—are not protectable trade marks for products that originate in the geographical area (all Idaho potato growers should be able to use "Idaho" in connection with selling their potatoes). Geographically misdescriptive marks that are deceptive are not protectable.

The most effective trade mark protection is obtained by filing a trade mark registration application in the Patent and Trade mark Office, www.uspto.gov. Federal law also protects unregistered trade marks, but such protection is limited to the geographic area in which the mark is actually being used.

Federal Protection for trade marks

Federal registration is limited to trade marks used in interstate commerce (or intended for use in interstate commerce). Before November 1989, a trade mark application could be filed only after the trade mark's owner had actually used the trade mark in commerce. Under current law, a person who has a "bona fide" intention to use a trade mark in commerce may apply to register the trade mark.

For federally registered marks, the use of notice of federal registration is optional. A federal registrant may give notice that his or her trade mark is registered by displaying with the trade mark the words "Registered in U.S. Patent and Trade mark Office" or the symbol ®.

State Protection

State trade mark protection under common law is obtained simply by adopting a trade mark and using it in connection with goods or services. This protection is limited to the geographic area in which the trade mark is actually being used.

State statutory protection is obtained by filing an application with the state trade mark office. Those relying on state trade mark law for protection cannot use the federal trade mark registration symbol, but they can use the symbol TM (or, for a service mark – SM).

One of the most important benefits of federal registration of a trade mark is the nationwide nature of the rights obtained. For the registrant, federal registration in effect reserves the right to start using the mark in new areas of the U.S.

A trade mark owner's rights under state trade mark law (and the rights of an unregistered trade mark owner under federal law) are generally limited to the geographical area in which the owner has used the trade mark.

A certificate of federal trade mark registration remains in effect for ten years, provided that an affidavit of continued use is filed in the sixth year. A federal registration may be renewed for any number of successive ten-year terms so long as the mark is still in use in commerce. The duration of state registrations varies from state to state. Common law rights endure so long as use of the trade mark continues.

Trade mark law does not give protection against use of the trade mark that is unlikely to cause confusion, mistake, or deception among consumers, but dilution laws may provide such broader protection

Trade Secrets

Trade secrets are protected only under state law¹⁵. The Uniform Trade Secrets Act¹⁶, in effect in a number of states, defines trade secrets as "information, including a formula, pattern, compilation, program, device, method, technique, or process that derives independent economic value from not being generally known and not being readily ascertainable and is subject to reasonable efforts to maintain secrecy."

¹⁵ Basic Principles of Intellectual Property Law Brochure , Brinks Hofer Gilson and Loine, Page 43

¹⁶ <http://nsi.org/Library/Espionage/usta.htm> (Last visited on 20 June 2010)

The following types of technical and business information are examples of material that can be protected by trade secret law:

- Customer lists.
- Designs.
- Instructional methods.
- Manufacturing processes.
- Document-tracking processes.
- Formulas for producing products.

Inventions and processes that are not patentable can be protected under trade secret law¹⁷. Patent applicants generally rely on trade secret law to protect their inventions while the patent applications are pending.

Six factors are generally used to determine whether material is a trade secret:

- The extent to which the information is known outside the claimant's business.
- The extent to which the information is known by the claimant's employees.
- The extent of measures taken by the claimant to guard the secrecy of the information.
- The value of the information to the claimant and the claimant's competitors.
- The amount of effort or money expended by the claimant in developing the information.
- The ease with which the information could be acquired by others.

Information has value if it gives rise to actual or potential commercial advantage for the owner of the information. Although a trade secret need not be unique in the patent law sense, information that is generally known is not protected under trade secrets law.

Trade secret protection attaches automatically when information of value to the owner is kept secret by the owner.

A trade secret owner has the right to keep others from misappropriating and using the trade secret. Sometimes the misappropriation is a result of industrial espionage.

¹⁷ <http://www.law.upenn.edu/bll/archives/ulc/fnact99/1980s/utsa85.htm> (Last visited on 20 June 2010)

Many trade secret cases involve people who have taken their former employers' trade secrets for use in new businesses or for new employers.

Trade secret protection endures so long as the requirements for protection - generally, value to the owner and secrecy - continue to be met. The protection is lost if the owner fails to take reasonable steps to keep the information secret.

Trade secret owners have recourse only against misappropriation. Discovery of protected information through independent research or reverse engineering (taking a product apart to see how it works) is not misappropriation.

Annexure 6 – EU Patent application and protection procedure (Additional information)

The Application

Designation of inventor

In your European patent application you must designate the inventor.

If you yourself are not the inventor or are not the sole inventor, you must file the designation of the inventor in a separate document, which must indicate the origin of your right to the European patent.

The person designated as the inventor will be mentioned in the published European patent application, in the European patent specification, in the Register of European Patents and in the European Patent Bulletin, unless he waives this right in due time in advance of publication.

If you do not designate the inventor when you file the European patent application, you will be invited to correct this deficiency within **sixteen months** after the date of filing or the earliest priority date, and in any event no later than five weeks prior to the intended date of publication of the application. If you fail to submit the designation of inventor within the specified period, your application will be refused

Claiming priority

If you or your predecessor in title have duly filed an application for a patent, a utility model or a utility certificate in or for any state party to the Paris Convention for the Protection of Industrial Property or any member of the World Trade Organization you may claim priority when filing a European patent application in respect of the same invention. You must file the European patent application no later than twelve months after filing the first application. If the earlier application was filed in or for an EPC contracting state, you may also designate that state in the European application. The earlier application whose priority you claim may also be a European or international (PCT) application¹⁸.

¹⁸ Article 87(1) EPC2000.

You may claim multiple priorities in respect of one European patent application, even if they originate from different countries. You may also claim multiple priorities for any one claim. If you claim multiple priorities, time limits which run from the date of priority are computed from the earliest priority date.

To claim the priority of an earlier application you must indicate the date, country and file number of the earlier application.

You must also file the priority document, i.e. a copy of the earlier application certified by the authority with which it was filed, together with authentication of its filing date from that authority. The EPO adds a copy of the earlier application whose priority you claim to the file of the European patent application free of charge if the earlier application is either a European patent application, an international patent application filed with the EPO as receiving Office, a Japanese or Korean patent or utility model application, an international application filed with the Japan Patent Office as receiving Office or a United States provisional or non-provisional patent application.

You must supply the priority document and the complete declaration of priority no later than **sixteen months** after the earliest priority date.

If you do not indicate the file number or file the copy of the earlier application within the above time limit, you will be invited to remedy the deficiency; if you fail to do so, you will lose your right to priority. Among the effects of a valid claim to priority is that the date of priority determines the prior art that can be cited against the European patent application.

As a rule, the EPO examines only the formal conditions for claiming priority. The examining division normally checks whether a right to priority exists if it finds prior art from between the priority date and the date of filing of the European patent application or if it finds a prior right under Article 54(3). The claimed subject-matter for which priority is claimed must be derivable directly and unambiguously from the full disclosure of the invention in the priority document.

A translation of the priority application into one of the official languages is only necessary if the validity of the priority claim is relevant for determining the patentability of the EP application. The EPO will invite the applicant or patentee to file such a translation¹⁹.

Filing by reference

When filing your patent application by reference to an earlier application, you should indicate in the Request for Grant²⁰ from the filing date, application number and the state in which the earlier application was filed. The reference must indicate that it replaces the description and any drawings. You will then have to file a certified copy of the previously filed application within two months of filing the application. If the reference application is not in English, French or German, you must file a translation thereof within the same time limit. If you do not file the certified copy within the said time limit or within a time limit set in a subsequent invitation, the application will not be dealt with as a European patent application. If you do not file a translation of the earlier application within the said time limit or within a time limit set in an invitation, the application will be deemed to be withdrawn.

Claims can also be filed by reference to those in the previous application.

Scope of protection

Representation²¹

If you have neither a residence nor your principal place of business in a contracting state, you must appoint a representative and act through him in all proceedings before the EPO other than in filing your European patent application and paying the fees.

Representation before the EPO may be undertaken only by professional representatives who are on a list maintained by the EPO, or by legal practitioners entitled to act before the EPO. You will find a searchable online database of professional representatives on the EPO website (www.epo.org). You can also order the directory of professional representatives from the EPO (Vienna) for an administrative fee.

¹⁹ Regulation 53(3) – EPC2000

²⁰ Section 26.1, EPC

²¹ Articles 133, 134, 134a

Representatives may be authorised either by individual authorisation or by general authorisation. The relevant forms, to which amendments are permitted, are available free of charge from the EPO and the national industrial property offices. They can also be downloaded from the EPO website²².

As a rule, professional representatives who identify themselves as such no longer need to file individual authorisations. General authorisations are registered at the EPO.

If an authorisation is not filed within the period specified by the EPO, any actions taken by the representative other than the filing of the European patent application and the payment of fees are deemed not to have been taken.

If an application is filed by more than one person, the Request for Grant should designate one of them or a professional representative as the common representative. Otherwise, the applicant named first in the Request for Grant is deemed to be the common representative.

However, if one of the applicants is obliged to appoint a professional representative, the latter is deemed to be the common representative unless the applicant named first in the Request for Grant has appointed a professional representative.

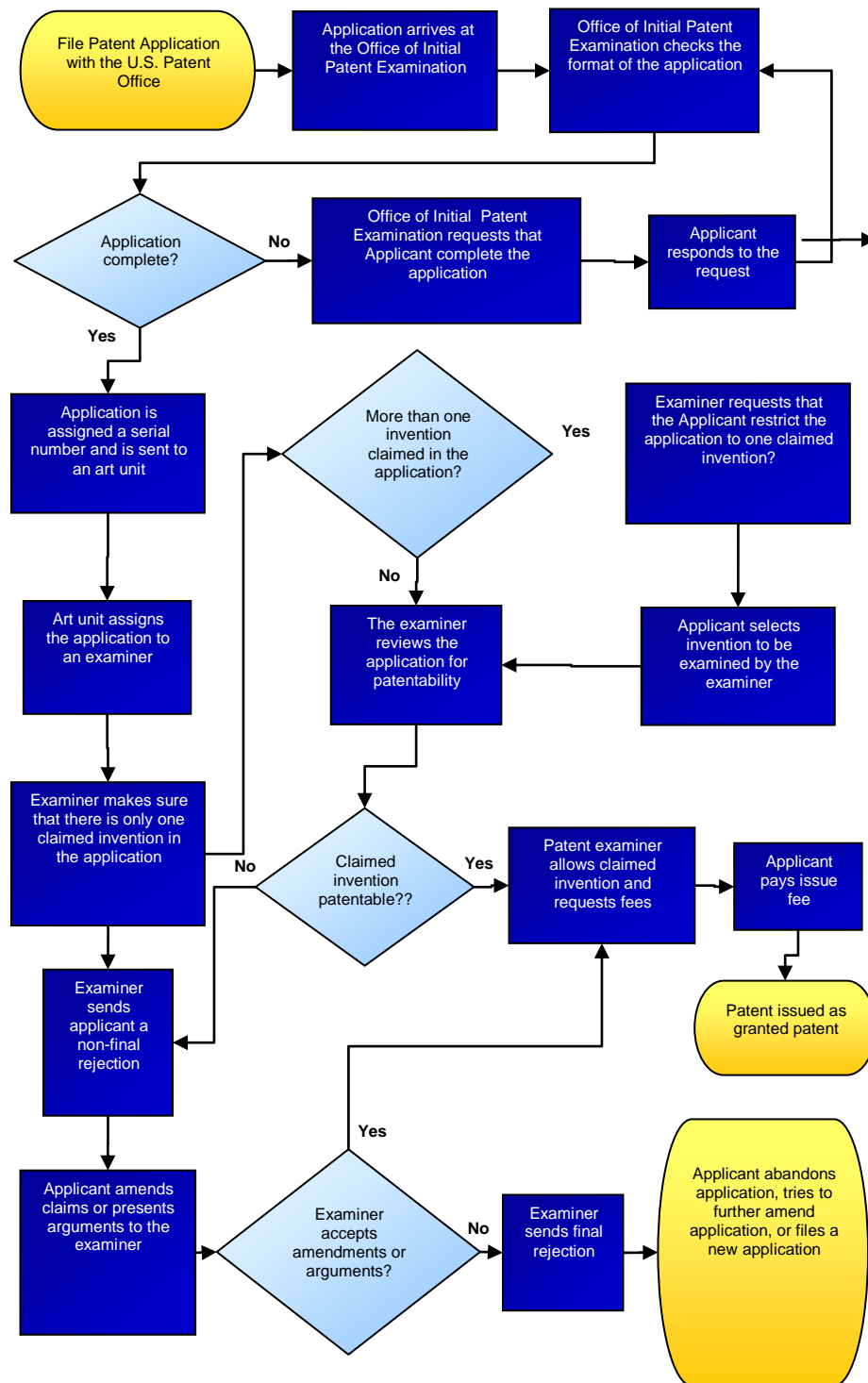
Notifications sent by the EPO (communications, notices, decisions and summonses) are addressed to the representative recorded in the Register of European Patents; or to you as applicant if you do not appoint a representative, and also if an employee is acting on your behalf.

If your business operates from different locations (i.e. comprises structural sub-divisions with no separate legal personality) and you wish notifications in proceedings before the EPO to be addressed to the department dealing with the application and to have a different address, e.g. your company's head office, used for publications and the Register of European Patents, you must indicate this separately in the Request for Grant²³ as 'Address for correspondence'.

²² www.epo.org

²³ Section 9, EPC

Annexure 7 - The USA Patent Application Procedure²⁴



²⁴ Source Inventor Basics (a US based website for small enterprises) to be viewed here <http://www.inventorbasics.com/Patent%20Process.htm> (Last visited 9 June 2010)

Annexure 8 - Brief overview of the judicial system in China

Civil Enforcement Bodies

Civil actions can be pursued in the local People's Court. Since 1993, China has maintained Intellectual Property Tribunals in the Intermediate People's Courts and Higher People's Courts throughout the country. The total volume of civil IP litigation in China is considerably less than administrative litigation. Though small companies may prefer to pursue the administrative route, it is expected that the number of IP litigation cases will significantly increase with recent changes in IP laws. Appeals of administrative IPR determinations, such as fines, are generally made to Administrative Tribunals of the Supreme People's Court (SPC), while the Criminal Tribunals of the SPC are likely to hear criminal cases.

The Court System and Legal Practice in China

The Chinese judicial system is a four-tier civil structure.²⁵

The system of people's courts in China consists of the Supreme People's Court, the local people's courts at different levels and the special people's courts. The local people's courts consist of the High People's Courts, the Intermediate People's Courts and the Primary People's Courts.

The Supreme People's Court is the highest of the judiciary of the state. It tries cases of first instance over which it has jurisdiction according to law and cases of first instance it deems that it should try, cases of first instance submitted for trial by people's courts at lower level in accordance with law, cases of appeal and protests against the judgments and orders of High People's Courts and special people's courts and cases of protests filed by the Supreme People's Procuratorate in accordance with the procedures of trial supervision. The Supreme People's Court supervises the trial conducted by local people's courts and specialized people's courts²⁶.

²⁵ EPO Conference, Growing Business with IP, Milan, Italy, July 2008, "IP Litigation in China" by J Nurton Managing IP, found at http://academy.epo.org/e_learning/ip_litigation_china/player.html (Last visited on 20 June 2010)

²⁶ The organization, functions and powers of the People's courts to be found here <http://www.chinaiprlaw.com/english/courts/court1.htm> (Last visited on 20 June 2010)

The competence of a particular court to hear a patent dispute is decided on principles of jurisdiction applying to the various categories of courts and based upon the geographical jurisdiction of the courts (domicile of defendant or place of alleged infringement) within the various districts.

In general, the court of first instance in a patent litigation case is the appropriate Intermediate Court, with appeals lying to the High(er) Court. In exceptional cases (damages expected to reach a certain amount or where the case is likely to have a large impact on the public and/or the Government), the High Court may be the court of first instance.

Chinese law provides two routes for obtaining relief for patent infringement (the so-called “bifurcated system”): through the administrative authorities (i.e. the relevant provincial or local branch of the State Intellectual Property Office (SIPO)) or through the courts. Patent validity is dealt with exclusively in Beijing by the Patent Re-examination Board (PRB) of SIPO. Administrative action is usually less effective in patent cases than for other intellectual property rights infringement cases due to the technical complexity of the subject matter. Administrative authorities will generally refer to court all but the most straightforward of patent cases. The Beijing No. 1 Intermediate Court is regarded as having most experience in dealing with patent matters.

For patent administrative disputes relating to patent grant, invalidation, compulsory licensing and royalties, the Beijing Intermediate People’s Court has jurisdiction because the Patent Re-examination Board and State Intellectual Property Office (SIPO) are within this jurisdiction (i.e. decisions of the PRB can be appealed to the Intermediate People’s Court in Beijing).

Chinese law is mostly regulated by civil law (codified), but has elements of common law.

The Chinese legal system does not have a rule of binding precedent and Chinese courts generally do not have to follow interpretations of the law made by other courts, even higher courts, in earlier cases.

This is particularly so where the other court is located in a different province. However, the decisions of some courts, particularly the Supreme Court and Beijing Higher Court, usually have persuasive authority and may indirectly influence a lower court's decision. One unusual feature of the Chinese system is that the Supreme Court and Higher Courts, as well as deciding cases, also issue guidelines to lower courts.

Furthermore, although the judgment of a court of appeal is final, there is a supervision process and if the Supreme Court or a court superior to the court of first instance finds error in a judgment, it shall respectively have the power to bring the case up for trial within such court or direct the court at a lower level to conduct a retrial of the case.

Although there is no explicit bias towards a Chinese entity versus a foreign entity in patent litigation, according to Counsel a number of factors may influence a court:

- the courts might be more prudent in cases where a foreign company is a party to the action, especially if the litigation is of a high profile both locally and internationally;
- the courts (particularly the lower courts) may be swayed in favour of Chinese companies appearing as a defendant in an infringement suit, especially if the company supports the local economy and has a strong influence in the area – in this instance the plaintiff would be advised to try and establish jurisdiction in another (preferably higher) court.

The exact number of patent invalidation proceedings (before the PRB) and patent infringement proceedings (before a court) instituted in China each year is not known as these statistics are not published. However, it is known to have increased significantly in recent years. It is also not clear how many litigation matters are settled out of court, but it is believed that the majority proceed to full trial and appeal.

All licensed lawyers in China have the same rights to appear before the courts at various levels. However, there are apparently between 20 and 30 law firms in China that are capable of handling patent litigation and other patent matters.

Annexure 9 – Survey

Note: Original survey was sent out to cover more than just Japan and China, the scope of my thesis was however limited to China and Japan only

A. General

Please note that all information received will be subject to confidentiality and that, although your company name will be listed as participating, results will be presented in such a manner that identity of specific companies and their related strategies will not be disclosed.

1. Company Name and address

2. Name of Person completing the Survey

Contact Email address:

B. General Business and IP Protection means

3. Do you have any current businesses in any of the following countries, and if so, please indicate business sector, i.e. chemicals, fuels, pharmaceuticals, Mining, etc:

Country	Yes/No	Business Sector
USA		
Europe		
China		
Japan		

4. Do you believe that the IP protection mechanisms in the following countries are sufficient, please substantiate your answer:

Country	Yes/No	Protection mechanism(s)
USA		
Europe		
China		
Japan		

5. Do you protect your IP in these countries, and if so by which means:

Country	Yes/No	IP Protection ²⁷
USA		
Europe		
China		
Japan		

6. In your view do you believe that the law(s) for IP protection are rigorously enforced in these countries

Country	Note at least one experience your company have had to substantiate your response
USA	
Europe	
China	
Japan	

7. What additional (to patent and trade mark legislation) do you rely on for protection of your business and its IP in the following countries²⁸:

²⁷ Focus here specific on Intellectual Property Laws and aspects relating thereto, Question 8 considers alternative protection of IP. Technology etc to IP Laws

²⁸ Of relevance here are any policies, international treaties, diplomacy or other legislation

Country	Additional IP protection Means
USA	
Europe	
China	
Japan	

8. Do you believe WIPO membership ensures compliance of its members to general acceptable IP behaviour? Please motivate your response by means of illustration?
9. In your view, do you believe that despite great efforts to comply with the TRIPS Agreement and WIPO's rules that there still remains problems with a lack of protection and enforcement of IP Rights in certain countries? In your response, please consider USA, Europe, China, Japan, Malaysia and India.
10. In your view, how do formal IP protection mechanisms compare in view of Japan to China and USA to Europe (Specifically considering the legal system and its value in protecting IP rights of Westerners exploring business opportunities in the East).
11. Patent legislative changes / improvements in China as affected by influence of Western systems. In your experience, have changes necessarily meant that IP vulnerabilities have been reduced? Please substantiate your answer?

C. Exploitation of IP

12. Does your company actively develop IP (in the broader sense of the word, i.e. registerable intellectual property rights, also know how, technology development etc)? If yes, please include a brief description of the scope of such developments.
13. In establishing any new business opportunities, including any form of exploitation of technology, would intellectual property rights have an impact, or be business driver?

- a. If yes, please substantiate with reference to the impact value, IP risk of third party proprietary items, enforceability of IP (own and that of third parties), IP systems and laws
 - b. If no, why not?
14. What is your typical approach with regards to IP and its application, protection and enforcement when doing business, or setting up a business deal in any of the following countries²⁹:

Country	IP Approach/Strategy
China	
Japan	

15. Would your answer to question 10 above be different if the country in which your business establishment is made would be one of Japan or China as opposed to Europe and the USA?
- a. If yes, please motivate answer
16. In your IP commercialization strategies would your corporation's approach differ when dealing with an Eastern counterpart as opposed to a Western investor)
17. What is your strategy to deal with piracy and counterfeit goods in the Far East
18. What is your policy/strategy with regards to IP litigation in:
- a. Defending your own IP
 - i. Validity
 - ii. Infringement by 3rd Parties
 - b. Infringement of 3rd party IP

²⁹ For example, do you have your own employees established in the foreign country to run your business, or do you use local force; do you familiarize yourself 100% with foreign countries business and IP processes; do you establish IP in the country before entering it, do you defend your IP, etc.

19. Do you have a different infringement litigation strategy when suing defendants that are based in the Far East? Please substantiate your answer

D. Business relationship and cultural practices in Asian Countries

20. Do you believe it beneficial to include government bodies as a business partner(s) in any of your technology exploitation or business ventures

Country	Yes/No	Motivation
USA		
Europe		
China		
Japan		

21. Advise where governmental or state interference or influence plays/or have played a role in business ventures in:

Country	Yes/No	Motivation
China		
Japan		

22. Do capitalism and other political regimes and socioeconomic structures play a role in your decision to invest in a particular country, and if so what in particular impact on your business strategy in countries of such nature? Please limit your response to three countries maximum.

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23. Advise on the role that cultural sensitivity plays in business relationships in your organization's dealings with people or organizations in any of the following Countries:

Country	Additional IP protection Means
China	
Japan	

24. In your experience do you find language a barrier to entry in business dealings with Eastern Cultures?

E. Intellectual Property Management and Business strategy

25. In your company are business and IP strategies aligned, or are these treated as different concepts?
26. Please describe your company's general IP strategy business model?

27. If your IP Business model(s) are different for, different countries, please advise how these would differ for

Country	Yes/No	Differentiation aspects
USA		
Europe		
China		
Japan		

In answering the above also specifically consider:

- ✚ Policy/guideline/procedure on patenting inventions vs. trade secrets or confidential information (consider also who decides, criteria for decision, IP budget constraints)
- ✚ Policy/guideline/procedure on foreign filing
- ✚ Policy/guideline/procedure on enforcing IP also copyright/patent/trade mark marking
- ✚ Policy/guideline/procedure on respecting IP rights of others
- ✚ Policy/guideline/procedure on technology licensing
- ✚ Policy/guideline/procedure on license audits and compliance
- ✚ Policy/guideline/procedure on inventors and assignments
- ✚ Policy/guideline/procedure on review of technical papers
- ✚ Who generally owns IP in your business – is there a centralized organization or entity for this
- ✚ Trade Secrets Protection / Procedure
- ✚ Management of key Employees/Inventors, for example, do you make use of Employment Agreements (assignment); Non-Compete Agreements
- ✚ Policy/guideline/procedure with regards to Industrial espionage

28. If you have different strategies for the various jurisdictions, would you ascribe any of these to Cultural influences? Please motivate your answer.

29. Please advise, in your corporation, if you have had any exposure or application of specific legislative influence on IP ownership and management thereof, including antitrust provisions (promoting innovation and competition) that impact on your business entitlement to ownership of inventions made by its employees and/or contracting entities

30. Does your corporation profits from IP ownership in any of the following:

Profit base	Yes/No	Advise frequency, countries, types ³⁰
Licensing		
IP enforcement		
Joint Venture capital		
Japan		
China		

31. Do you believe IP Mining (concept of acquiring third party IP illegally in one country and exploiting it without penalty in countries where legal systems are poor and IP rights enforcement non-existent are used by Western Corporations in Eastern Countries

³⁰ Types refer for example to exclusive license, patent litigation etc.

Annexure 10 - Survey responses

Completed Questionnaire 1

B. General Business and IP Protection means

1. Do you have any current businesses in any of the following countries, and if so, please indicate business sector, i.e. chemicals, fuels, pharmaceuticals, Mining, etc:

Yes, in all of the Countries Engineering Information Management Products and Services.

2. Do you believe that the IP protection mechanisms in the following countries are sufficient, please substantiate your answer:

Country	Yes/No	Protection mechanism(s)
USA	Yes	Patent, Copyright, Trade mark, domain name registration and trade secret laws and common contract law of confidentiality-nondisclosure agreements are strong yet costly to execute and infringement litigation is effective but costly.
Europe	Yes	See USA above
China	Yes – ‘ <i>with proviso</i> ’	Patent, Copyright, Trade mark, domain name registration and trade secret laws are effective provided sufficient Mandarin character variations of translated meaning are also registered. Contract law of confidentiality-nondisclosure agreements is sufficient and infringement litigation is effective, again provided , agreements are impressed with valid company seals and authorized person signatures. In addition, IP civil enforcement is effective provided the litigants are fully aware of Chinese administrative and lower court powers and enforcement procedures.

Japan	Yes	No Opinion - due to pending registrations
Malaysia	No	No Opinion - no IP planned activity
India	Yes	IP pending - Cautious and sceptical based on early stage IP activity in process.

3. Do you protect your IP in these countries, and if so by which means:

Country	Yes/No	IP Protection ³¹
USA	Yes	All the following processes are used to the fullest extent possible; log books of developments are periodically witnessed; registration of patents, copyrights, trade marks, domain name registrations; use of confidentiality/non-use/nondisclosure and trade secret agreements; continual monitoring for potential non-licensed use, and judicial redress for IP infringements.
Europe	Yes	Same as for USA
China	Yes	Same as for USA
Japan	Yes	Limited – pending registrations
Malaysia	No	
India	Yes	Pending

³¹ Focus here specific on Intellectual Property Laws and aspects relating thereto, Question 8 considers alternative protection of IP. Technology etc to IP Laws

4. In your view do you believe that the law(s) for IP protection are rigorously enforced in these countries

Country	Note at least one experience your company have had to substantiate your response
USA	<p>[Yes and No] ...Explanation:</p> <p>FIRST. IP and its attendant protections are by no means bounded by physical science adhering to known natural laws. Provided the IP asserted claims are cogently based on: non-obviousness, novelty, utility, properly registered, validly issued, first-to-invent or first-to-copyright, or first-to use a trade mark, or alternatively; first-to-file an invention, copyright, or trade mark; and further provided the IP claimed is non-infringing another's valid claims, is not in the public domain, is not abandoned, and has been reduced to practice; then <u>YES</u> <u>PERHAPS</u> <u>MAYBE just MAYBE</u> the laws for IP protection can be rigorously enforced.</p> <p>SECOND. It must be clearly understood that USA IP enforceability is highly dependent upon private civil actions brought by IP claims disputants within the purview of the civil judicial court system. IP registrations together with underlying filing documentation merely provide measures of persuasive and corroborating IP claims evidence. The IP laws are more procedural and functional in nature to better assure that alleged IP claims are procedurally being followed. Examiners do put IP claims to some degree of validity test prior to official grant IP rights. But the grant is not absolute. The 'strict validity test' of IP claims depends nearly exclusively upon further critical examination, detailed scrutiny, in a civil legal adversarial court proceeding conducted by the claims disputants. The court proceedings are presided over by judges as civil procedural rule referees and the juries are deciders of</p>

IP validity claim.

THIRD. Authentic IP enforceability of valid claims is subject to civil claimants and counsel of civil claimants having the ability, capacity, resourcefulness and financial power to prosecute and defend against potential IP infringers. Regardless of wilful, intentional or unintentional infringement; the cost of civil litigation is extremely high and judicial processes tend to privilege those having the financial resources to draw out a litigation process to the potential detriment of those who are not equally privileged. Moreover, the technical resourcefulness of counsel to persuade and influence juries is a major factor that can skew real IP enforcement.

Experience: Robert Kerns, IP Plaintiff (whom I personally knew as both being members of the Houston Inventors Association) was first-to-invent the intermittent windshield wiper in the early 1960s. Kerns shared the technology with Ford engineers in Detroit in hopes of marketing the product and establishing his own company. Kerns improved his invention at Ford over a period of about 18 months at which time Kerns employment was terminated by Ford. Ford IP staff later argued that Ford, not Kerns, had invented and patented the device. Evidence shows that Ford actually stated to Kerns that Ford had no use for the wiper system and did not believe the wiper system was marketable and hence had no need to further employ Kerns. Subsequent to Kerns Ford employment and unknown to Kerns, within 2 year, wiper systems started showing up in cars produced by every major automaker in the USA and Europe (including Ford).. Kerns fought for his rights in a protracted legal battle with USA and European auto companies. Along the

	<p>way, he suffered a nervous breakdown in 1976. Finally in 1991, he won a \$10.2 million judgment against Ford and \$11.2 million against Chrysler. Much of the money went for personal debts and legal expenses incurred over the years. Nevertheless, Kerns died in 2003 leaving an estate valued at less than \$1M.</p> <p>Major points.</p> <p>A. Kern's brings to light both the potential strengths and weaknesses of "first-to-invent" (a long argued and unique USA reasoning) as opposed to most other nations "first-to-file" process. It is argued that first-to-invent awards the invention rightfully to that person who first validly invents the device regardless of when the invention is filed and patented. However, that strength of first-to-invent is overshadowed by the rightful and valid inventors inability to withstand a long, costly and bitter legal battle, to defend against a financially more powerful patent claimant.</p> <p>B. A major failure was recognized regarding the initial court pleadings elected by Kern's legal counsel. In plaintiff's initial court filings, Kern's counsel argued lost royalties, i.e., the automakers in essence owed a fair royalty to Kerns as if the automakers had been licensed to produce Kern's IP. Regrettably, initial counsel did not argue lost profits. NOTE: Counsel failed to argue, that infringers deprived Kerns of the right to manufacture the device and hence deprived him of the value of lost manufacturing profits. This error is considered by most IP valuation professionals to have resulted in</p>
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Kerns lost awards of upwards \$500M.

Final note:

- The above discussion related mostly to IP patent processes. However, the legal IP doctrines of “first-to-use” (related to Trade marks) and “first-to-copyright” plus incremental amounts of change to a copyrighted work that will allow a subsequent copyright to stand are problematic. “First-to-use or first-to-copyright” (hereinafter “first”) have legal precedence over subsequent registrants of such IP works. If “first” users can factually prove without registration their prior use or copyright to another claimant holding a registration and issued certificate of the identical IP property, then in essence the registration certificate is meaningless to that holder. Obviously, IP claimants who can prove “first” and also who hold a valid registration with issued certificate are superior positioned IP claimants.
- The USA current sitting Congress is deliberating a proposal to change the USA patent regime from “first-to-invent” to “first-to-file” to conform to patent regimes more consistent with the rest of the world. I am in favor of this USA change as I believe the first-to-file is a more prudent and definitive IP patent process.

Europe	<p>[Yes and No] I believe the European IP protection system is capable of more rigorous IP evaluations prior to IP granting. than is the USA. However, I have yet to experience an IP 'strict test' IP enforcement challenge in Europe.</p>
China	<p>Yes. This response usually surprises many who are ill-informed of the Chinese legal IP recent positive system improvements and developments.</p> <p>FIRST. The Chinese Trade mark, Copyright and Patent processes are mostly procedural (with the exception of Utility Patents which follow the German model of thorough examination before issuance of a Patent). Provided IP claimant (internal or external to China) proceeds with the most current Chinese IP protection processes and utilize the enforcement systems of China there exists sufficient protections. I have experience with Chinese trade marks, copyrights, patent and related IP registrations, but to date no experience with protection enforcement challenges. However I am aware of IP claimants (external to China) who have successfully enforced IP rights in China under Chinese IP enforcement systems - both civil and criminal. Most successful experiences by claimants have been through the Chinese IP administrative enforcement systems, e.g., Lower Peoples Courts, Special IP courts (established in 1996), and special IP panels within the Supreme People's Courts (established in 2004) empanelled in major municipalities like Beijing, Shanghai, Guangzhou, Tianjin, etc., which have proven very effective at enforcement. However, a caveat, the claimant plaintiffs must know how the administrative system functions and their intricacies in order to effectively utilize them. The criminal enforcement systems are less effective due</p>

	to a myriad of reasons, the most common of which is the inability of the Chinese criminal justice system to locate an IP offender who can simply get lost in the shadows of the expanse of Chinese humanity.
Japan	Limited to no experience
Malaysia	No experience
India	Limited experience due to IP issues pending but I am very sceptical and cautious.

5. What additional (to patent and trade mark legislation) do you rely on for protection of your business and its IP in the following countries³²:

Country	Additional IP protection Means
USA	US Customs and Border Protection Services. Recordation of registered Trade marks, Copyrights, and Patents, detention, seizure, coordination of criminal prosecution.
Europe	None to date
China	Monitoring, Identifying, product and service channels of hijacked, pirated and counterfeit trade. Working with Chinese local Police service bureaus, China export customs offices (yes China has export customs staff who can be very effective at interdicting China sourced pirated and counterfeit goods), and administrative judges. Again, to be effective IP claimants must be proactive and not rely strictly on legislated laws.
Japan	Limited to no experience
Malaysia	No experience
India	Limited experience due to IP issues pending but I am very

³² Of relevance here are any policies, international treaties, diplomacy or other legislation

	sceptical and cautious.
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6. Do you believe WIPO membership ensures compliance of its members to general acceptable IP behaviour? Please motivate your response by means of illustration?

WIPO membership alone will not ensure compliance with acceptable IP behaviour. IP claimants must be proactive to gain enforcement and compliance with property rights legislation.

7. In your view, do you believe that despite great efforts to comply with the TRIPS Agreement and WIPO's rules that there still remains problems with a lack of protection and enforcement of IP Rights in certain countries? In your response, please consider USA, Europe, China, Japan, Malaysia and India.

Cannot answer.

8. In your view, how do formal IP protection mechanisms compare in view of Japan to China and USA to Europe (Specifically considering the legal system and its value in protecting IP rights of Westerners exploring business opportunities in the East).

As I explained above IP claimants must practice proactive monitoring of their IP properties together with developing a good working knowledge of local civil judicial procedures and cultural practices.

9. Patent legislative changes / improvements in China as affected by influence of Western systems. In your experience, have changes necessarily meant that IP vulnerabilities have been reduced? Please substantiate your answer?

In my opinion IP vulnerabilities have been reduced over the past 10 years. China is making strides and planning for further IP progress in such areas as: Unfair Competition, Product Quality, Customs Regulations (especially Exports), special IP Courts, IP Administrative authorities, Intermediate People's Courts and Higher People's Courts, developing judges and special court panellists with more IP experience. China has much

catching-up to do. For example: Chinese design patents today issue with only cursory review or examination. It is mostly, *in my own words*, a Chinese ‘feel good’ exercise to show the IP world that, “See we (China) are adding to the worlds IP pool, just look at the rising patent application statistics we can report.”

When in fact many of the design patents being issued are not scrupulously examined and a good share will most likely under close examination would be held invalid. It must be stressed that just like in the USA much more than reliance upon mere laws, legal conventions and judicial systems is needed to rigorously protect IP. Protection goes way beyond such ideal mandates. Most important is the self-vigilance and self-monitoring of IP violations by the IP rights owners themselves. Self-protection is one of the costs of IP proliferation on a global scale. Lack of awareness and complacency to self-protect one’s own IP assets are a frequent overlooked and very effective protection of IP. Self-monitoring of global distribution channels is a cost effective means of protection and far less costly than legal or judicial mandates. This is so regardless of nation in which to protect IP.

C. Exploitation of IP

10. Does your company actively develop IP (in the broader sense of the word, i.e. registerable intellectual property rights, also know how, technology development etc)? If yes, please include a brief description of the scope of such developments.

Our company has approached IP processes with the objective of serving business goals rather than IP being the business. We have a proprietary cluster of engineering management decision processes which serve a market niche. We seek to exploit this niche market and outpace competition. To that end, IP protections support our business objectives and at this stage of the IP lifecycle we do not plan for the foreseeable future to out-license the current IP assets.

11. In establishing any new business opportunities, including any form of exploitation of technology, would intellectual property rights have an impact, or be business driver?

- a. If yes, please substantiate with reference to the impact value, IP risk of third party proprietary items, enforceability of IP (own and that of third parties), IP systems and laws
- b. If no, why not?

Answer: Absolutely! In today's global marketplace, it would be foolish to launch or attempt to sustain a commercial enterprise that is directly dependent upon IP protection and from which value is gained based on the IP. One is compelled in this case to put protections in place during development and prior to commercial launch. I am not advocating that ALL IP need protection. For example; 95% of the worlds toys are not IP protected. These assets generally have little need for protection since time-to-market is the principal driver. The toy market waxes and wanes faster than any value gained over the cost of IP protection. One has to weigh the value of IP protection lifecycle costs, initial and ongoing administration, against the expected future economic gains from protection vs. potential losses with no protection.

12. What is your typical approach with regards to IP and its application, protection and enforcement when doing business, or setting up a business deal in any of the following countries³³:

Answer: In our specific case, the cluster of IP, including; Utility patents (both device and computer simulations), copyrights, trade marks, domain names have been established or are in process of being established in USA, Europe and China. Because of the engineering nature of the suite of dynamic simulation software products and the proprietary algorithms underpinning those processes we have concluded some years will pass before the proprietary processes can be reverse engineered. Accordingly, much of the software is publicly revealed in the IP registered documentation but other related and embedded services attached to the public documentation is treated as trade secrets and is currently not revealed publicly.

³³ For example, do you have your own employees established in the foreign country to run your business, or do you use local force; do you familiarize yourself 100% with foreign countries business and IP processes; do you establish IP in the country before entering it, do you defend your IP, etc.

13. Would your answer to question 10 above be different if the country in which your business establishment is made would be one of Japan, China, Malaysia or India as opposed to Europe and the USA?

a. If yes, please motivate answer

Answer: Same as for 16

14. In your IP commercialization strategies would your corporation's approach differ when dealing with an Eastern counterpart as opposed to a Western investor)

Answer: We do not plan into the foreseeable future to license, sell or transfer any IP rights to third parties. Commercial engineering and management users use our IP technology for which we charge a fee. No IP royalty arrangements are contemplated. Company principals will sell the IP portfolio cluster wholesale with a residual percentage on future top line revenues, but no licensing is contemplated. This is a whole separate issue for which there is not time to discuss these matters.

15. What do you believe are the IP piracy challenges facing your specific industry?

Answer: Our IP cluster is engineering in nature and not a consumer item. My experience is that piracy, counterfeiting, hijacking, diversion; copying, adulteration, etc. are more prevalent among consumer goods. Accordingly, we attribute reduced risk to knock-off IP.

16. What is your strategy to deal with piracy and counterfeit goods in the Far East

Answer: See question 17

17. What is your policy/strategy with regards to IP litigation in:

- a. Defending your own IP
 - i. Validity
 - ii. Infringement by 3rd Parties
- b. Infringement of 3rd party IP

Answer: We front-end-loaded our IP patent validity efforts, to ensure a high degree of claim validity. Engineers and managers and their clients derive significant value savings from using our IP cluster. Accordingly, we will vigorously defend against infringers. Short of 'strict-testing' we conclude there is strong IP claim validity.

18. Do you have a different infringement litigation strategy when suing defendants that are based in the Far East? Please substantiate your answer

Answer: We conclude potential infringers would have to go to great cost to emulate or copy the processes underpinning the public disclosed claims in our IP cluster. If infringers want to do duplicate processes inherent and underpinning our property we welcome their efforts. Because of the way we authenticate source and use of both our computerized and non-computerized products and services we gain a high degree of control over those users who could copy or infringe our IP portfolio. Basically no different strategy in USA, Europe or Far East.

D. Business relationship and cultural practices in Asian Countries

19. Do you believe it beneficial to include government bodies as a business partner(s) in any of your technology exploitation or business ventures

Answer to all: No, Public bodies will strictly be users/customers not relationship partners.

20. Advise where governmental or state interference or influence plays/or have played a role in business ventures :

Answer: This is not anticipated in our specific IP case.

21. Do capitalism and other political regimes and socioeconomic structures play a role in your decision to invest in a particular country, and if so what in particular impact on your business strategy in countries of such nature? Please limit your response to three countries maximum.

Answer: No. Engineering management products and services are not overly dependent on economic, social, political regimes or persuasions. Once engineering actors have a go decision from the owners/sponsors of the development effort our IP cluster aids and assists engineer/managers to achieve the development result more efficiently and effectively.

22. Advise on the role that cultural sensitivity plays in business relationships in your organization's dealings with people or organizations in any of the following Countries:

Answer: Little to no perceived effect.

23. In your experience do you find language a barrier to entry in business dealings with Eastern Cultures?

Answer: No, Language barriers are not a boundary condition

E. Intellectual Property Management and Business strategy

24. In your company are business and IP strategies aligned, or are these treated as different concepts?

Answer: Both are totally, proactively and synergistically aligned.

25. Please describe your company's general IP strategy business model?

Answer: No in or out-licensing to 3rd parties vendors of IP. End-users (engineers and managers) who utilize the non-computer products will have their individual license free use but no license to recreate or sell, and computer simulator users will have a subscription license to use on either a stand-alone or networked computer renewal for a fee on an annual basis. Computer based IP will reside on our central and back-up site internet accessible servers.

26. If your IP Business model(s) are different for, different countries, please advise how these would differ for

Answer: No difference regardless of nation.

27. If you have different strategies for the various jurisdictions, would you ascribe any of these to Cultural influences? Please motivate your answer.

Answer: None anticipated at this time.

28. Please advise, in your corporation, if you have had any exposure or application of specific legislative influence on IP ownership and management thereof, including antitrust provisions (promoting innovation and competition) that impact on your business entitlement to ownership of inventions made by its employees and/or contracting entities

Answer: None to date.

29. Does your corporation profits from IP ownership in any of the following:

Answer: No. Profits come strictly from sales, fees, and

30. Do you believe IP Mining (concept of acquiring third party IP illegally in one country and exploiting it without penalty in countries where legal systems are poor and IP rights enforcement non-existent are used by Western Corporations in Eastern Countries

Answer: I have no knowledge of this subject matter.

Questionnaire Response 2

B. General Business and IP Protection means

1. Do you have any current businesses in any of the following countries, and if so, please indicate business sector, i.e. chemicals, fuels, pharmaceuticals, Mining, etc:
Yes to all Countries – Chemical Business sector.

2. Do you believe that the IP protection mechanisms in the following countries are sufficient, please substantiate your answer:

Country	Yes/No	Protection mechanism(s)
USA	Yes	Patent office; arbitration; courts
Europe	Yes, to a degree	Patent office; opposition mechanism very good. Courts not as good.
China	Yes & no	Yes in obtaining protection thru patent office; no in that the courts seems hesitant to enforce patents; however, it appears to be changing somewhat; there is still a lot of piracy which makes business difficult in China
Japan	Yes & no	Yes in obtaining protection thru patent office; no in that the courts seems hesitant to enforce patents; however, it appears to be changing somewhat; there is still a lot of piracy which makes business difficult in Japan
Malaysia	Yes & no	Yes in obtaining protection thru patent office; no in that there seems to be minimal infrastructure in the country. It is a somewhat slower process to obtain protection;
India	Yes & unsure.	Yes via the patent offices; unsure in that it is unclear whether the Indian courts will enforce patents; the country is changing rapidly and infrastructure appears needed.

3. Do you protect your IP in these countries, and if so by which means:

Country	Yes/No	IP Protection ³⁴
USA	Yes	Patents, TM; thru courts
Europe	Yes	Patents; TM; thru patent offices, oppositions when believed needed; court enforcement when believed needed and evidence supports.
China	Yes	Patents; TM; thru patent offices, oppositions when believed needed; court enforcement when believed needed and evidence supports
Japan	Yes	Patent; TM; thru patent offices.
Malaysia	Yes	Patents; TM; thru patent offices
India	Yes	Patents; TM's; thru patent offices

4. In your view do you believe that the law(s) for IP protection are rigorously enforced in these countries

Country	Note at least one experience your company have had to substantiate your response
USA	Yes
Europe	Somewhat
China	Very little; but appears changing
Japan	Very little; but appears changing
Malaysia	No
India	no

5. What additional (to patent and trade mark legislation) do you rely on for protection of your business and its IP in the following countries³⁵:

For all countries: reliance is also on trade secreted information and on employees to maintain it secret, and utilize for the benefit of the corporation.

³⁴ Focus here specific on Intellectual Property Laws and aspects relating thereto, Question 8 considers alternative protection of IP. Technology etc to IP Laws

³⁵ Of relevance here are any policies, international treaties, diplomacy or other legislation

6. Do you believe WIPO membership ensures compliance of its members to general acceptable IP behaviour? Yes. To a degree.

Please motivate your response by means of illustration? China and Japan who now do so much business with the US rely on membership, among other avenues, to entice business into their countries.

7. In your view, do you believe that despite great efforts to comply with the TRIPS Agreement and WIPO's rules that there still remains problems with a lack of protection and enforcement of IP Rights in certain countries? Yes. In your response, please consider USA, Europe, China, Japan, Malaysia and India.

In your view, how do formal IP protection mechanisms compare in view of Japan to China and USA to Europe (Specifically considering the legal system and its value in protecting IP rights of Westerners exploring business opportunities in the East). They compare favourably. The difference lies in opposition proceedings available everywhere but the US. This is a great process to avoid future litigation and the US should consider this process to avoid litigation. The other difference is in litigation and the process itself. While litigation is expensive and time consuming, it is more so in Japan, China and EU, and the outcome less predictable. Business relies on predictability (to a degree) and the enforceability of patents in the non-US countries, makes considering patenting all together a more tenuous decision.

8. Patent legislative changes / improvements in China as affected by influence of Western systems. In your experience, have changes necessarily meant that IP vulnerabilities have been reduced? No. Please substantiate your answer? Going to court to enforce your patent remains costly, difficult, a lengthy process (especially having to first file criminal charges and then convert to civil process), and the outcome remains highly unpredictable.

C. Exploitation of IP

9. Does your company actively develop IP (in the broader sense of the word, i.e. registerable intellectual property rights, also know how, technology development etc)? If yes, please include a brief description of the scope of such developments. Yes; I am not sure what description you want of each. Some know how remains a trade secret, while other develops into patents, TM's, copyright, or technology to consider for licensing.
10. In establishing any new business opportunities, including any form of exploitation of technology, would intellectual property rights have an impact, or be business driver?
- a. If yes, please substantiate with reference to the impact value, IP risk of third party proprietary items, enforceability of IP (own and that of third parties), IP systems and laws
 - b. If no, why not?
11. What is your typical approach with regards to IP and its application, protection and enforcement when doing business, or setting up a business deal in any of the following countries³⁶:

For all countries, the following are considered: where we sell, competitor's activity, what amount we intend to sell, strength of patent and patent office to enforce, cost to patent, breadth of coverage, cost to enforce.

Would your answer to question 10 above be different if the country in which your business establishment is made would be one of Japan, China, Malaysia or India as opposed to Europe and the USA? No. We are in all these countries, and the strategy remains the same.

- a. If yes, please motivate answer

³⁶ For example, do you have your own employees established in the foreign country to run your business, or do you use local force; do you familiarize yourself 100% with foreign countries business and IP processes; do you establish IP in the country before entering it, do you defend your IP, etc.

12. In your IP commercialization strategies would your corporation's approach differ when dealing with an Eastern counterpart as opposed to a Western investor) – no.

13. What do you believe are the IP piracy challenges facing your specific industry?
Ability to stop the infringers.

14. What is your strategy to deal with piracy and counterfeit goods in the Far East
Go after them as best we can.

15. What is your policy/strategy with regards to IP litigation in:

- a. Defending your own IP
 - i. Validity
 - ii. Infringement by 3rd Parties
- b. Infringement of 3rd party IP

Our Company has a history of enforcing its IP in various countries of the world against infringers. We plan to continue with our strategy to enforce and block others where believed needed to maintain business value.

16. Do you have a different infringement litigation strategy when suing defendants that are based in the Far East? Please substantiate your answer
No.

D. Business relationship and cultural practices in Asian Countries

17. Do you believe it beneficial to include government bodies as a business partner(s) in any of your technology exploitation or business ventures

This has not been studied or considered in detail. It would need to be evaluated further. Advise where governmental or state interference or influence plays/or have played a role in business ventures in: none to my knowledge.

18. Do capitalism and other political regimes and socioeconomic structures play a role in your decision to invest in a particular country, **No.**

and if so what in particular impact on your business strategy in countries of such nature? Please limit your response to three countries maximum.

19. Advise on the role that cultural sensitivity plays in business relationships in your organization's dealings with people or organizations in any of the following Countries:

Our Company considers the culture in all countries where business is conducted and tries to continue their dealings in a respectful manner. If this culture is against IP protection or enforcement, then the business deal is reconsidered.

20. In your experience do you find language a barrier to entry in business dealings with Eastern Cultures? – no.

E. Intellectual Property Management and Business strategy

21. In your company are business and IP strategies aligned, or are these treated as different concepts? Aligned.

22. Please describe your company's general IP strategy business model? Follow the business model, and meet the needs of the business.

23. If your IP Business model(s) are different for, different countries, please advise how these would differ for

They are not different for these different countries.

24. If you have different strategies for the various jurisdictions, would you ascribe any of these to Cultural influences? Please motivate your answer.

25. Please advise, in your corporation, if you have had any exposure or application of specific legislative influence on IP ownership and management thereof, including antitrust provisions (promoting innovation and competition) that impact on your business entitlement to ownership of inventions made by its employees and/or contracting entities

Do not understand the question. For our corporation, all employees sign documents when they begin their employment that all IP directed to their work, belongs to the corporation. In some countries (e.g. Germany), we do consider the remuneration laws, but IP ownership remains with the corporation.

26. Does your corporation profits from IP ownership in any of the following:

Profit base	Yes/No	Advise frequency, countries, types³⁷
Licensing	Yes	Very infrequently
IP enforcement	Yes	Frequently – US, UK, working on Taiwan and China
Joint Venture capital	Yes	Infrequently, but considering more.
Japan		Somewhat
Malaysia		No
India		No, but considering.

27. Do you believe IP Mining (concept of acquiring third party IP illegally in one country and exploiting it without penalty in countries where legal systems are poor and IP rights enforcement non-existent are used by Western Corporations in Eastern Countries – yes. But I have no basis for this. It is merely my opinion that this occurs.

³⁷ Types refer for example to exclusive license, patent litigation etc.

Questionnaire Response 3:

B. General Business and IP Protection means

1. Do you have any current businesses in any of the following countries, and if so, please indicate business sector, i.e. chemicals, fuels, pharmaceuticals, Mining, etc:

In all Countries the Food Sector

2. Do you believe that the IP protection mechanisms in the following countries are sufficient, please substantiate your answer:

Country	Yes/No	Protection mechanism(s)
USA		YES BUT VERY EXPENSIVE
Europe		YES GENERALLY QUITE GOOD
China		IMPROVING
Japan		IMPROVING
Malaysia		DO NOT KNOW FOR SURE
India		IMPROVING

3. Do you protect your IP in these countries, and if so by which means:

Country	Yes/No	IP Protection ³⁸
USA		REGISTRATIONS, OPPOSITIONS, LITIGATION ETC.
Europe		SAME
China		SAME
Japan		NOT AS MUCH
Malaysia		NOT AS MUCH
India		SAME AS EUROPE

³⁸ Focus here specific on Intellectual Property Laws and aspects relating thereto, Question 8 considers alternative protection of IP. Technology etc to IP Laws

4. In your view do you believe that the law(s) for IP protection are rigorously enforced in these countries

Country	Note at least one experience your company have had to substantiate your response
USA	GOOD DETERRENT TO SETTLE CASE OUT OF COURT
Europe	GOOD SYSTEM IN GENERAL; UK NEEDS IMPROVEMENT
China	IMPROVING BUT GOOD RECENT RESULT AT THE SUPREME COURT
Japan	DO NOT KNOW FOR SURE
Malaysia	SAME
India	HAVING THE FIRST REAL EXPERIENCE/ WAITING FOR DEVELOPMENTS/ REGISTRATION SYSTEM NOT SATISFACTORY UNTIL NOW

5. What additional (to patent and trade mark legislation) do you rely on for protection of your business and its IP in the following countries³⁹:

Country	Additional IP protection Means
USA	INDUSTRIAL DESIGNS & UNFAIR COMPETITION LEGISLATION
Europe	SAME
China	SAME
Japan	SAME
Malaysia	NOT SURE
India	NOT SURE

6. Do you believe WIPO membership ensures compliance of its members to general acceptable IP behaviour? Please motivate your response by means of illustration?
DO NOT KNOW

³⁹ Of relevance here are any policies, international treaties, diplomacy or other legislation

7. In your view, do you believe that despite great efforts to comply with the TRIPS Agreement and WIPO's rules that there still remains problems with a lack of protection and enforcement of IP Rights in certain countries? In your response, please consider USA, Europe, China, Japan, Malaysia and India.

TRADE DRESS PROTECTION NEEDS IMPROVEMENT IN CHINA MALAYSIA AND MAYBE INDIA

8. In your view, how do formal IP protection mechanisms compare in view of Japan to China and USA to Europe (Specifically considering the legal system and its value in protecting IP rights of Westerners exploring business opportunities in the East).
CANNOT REPLY RE JAPAN. AS FOR USA/EUROPE, EUROPE SEEMS MORE AFFORDABLE AND EFFICIENT

9. Patent legislative changes / improvements in China as affected by influence of Western systems. In your experience, have changes necessarily meant that IP vulnerabilities have been reduced? Please substantiate your answer?
WE REPORTED A GOOD RESULT AT THE SUPREME COURT OF CHINA BASED ON UNFAIR COMPETITION LEGISLATION.

C. Exploitation of IP

10. Does your company actively develop IP (in the broader sense of the word, i.e. registerable intellectual property rights, also know how, technology development etc)? If yes, please include a brief description of the scope of such developments.
ALL OUR BRANDS ARE BORNE WITH A VIEW OF BECOMING INTERNATIONAL BRANDS WHICH REQUIRE A VAST PROTECTION IN THE LOCAL, MADRID, EPO AND OHIM SYSTEMS
11. In establishing any new business opportunities, including any form of exploitation of technology, would intellectual property rights have an impact, or be business driver?

- a. If yes, please substantiate with reference to the impact value, IP risk of third party proprietary items, enforceability of IP (own and that of third parties), IP systems and laws

ALL OUR BRANDS TRY TO BE “USP” (UNIQUE SELLING PROPOSITIONS)
WHICH REQUIRE SUITABLE IP PROTECTION

- b. If no, why not?

12. What is your typical approach with regards to IP and its application, protection and enforcement when doing business, or setting up a business deal in any of the following countries⁴⁰:

Country	IP Approach/Strategy
China	STRONG LOCAL PROTECTION
Japan	LOCAL PROTECTION
Malaysia	RELIANCE ON INTERNATIONAL SYSTEMS
India	SAME

13. Would your answer to question 10 above be different if the country in which your business establishment is made would be one of Japan, China, Malaysia or India as opposed to Europe and the USA? NO

- a. If yes, please motivate answer

14. In your IP commercialization strategies would your corporation’s approach differ when dealing with an Eastern counterpart as opposed to a Western investor) NO

15. What do you believe are the IP piracy challenges facing your specific industry?
PASSING OFF

16. What is your strategy to deal with piracy and counterfeit goods in the Far East
INVESTIGATIONS, LOCAL ENFORCEMENT AGENCIES AND LITIGATION

⁴⁰ For example, do you have your own employees established in the foreign country to run your business, or do you use local force; do you familiarize yourself 100% with foreign countries business and IP processes; do you establish IP in the country before entering it, do you defend your IP, etc.

17. What is your policy/strategy with regards to IP litigation in:

- a. Defending your own IP
 - i. Validity
 - ii. Infringement by 3rd Parties
- b. Infringement of 3rd party IP

STRONG MONITORING OF THIRD PARTIES' TM FILINGS; OPPOSITIONS
AND LITIGATION AS APPROPRIATE

18. Do you have a different infringement litigation strategy when suing defendants that are based in the Far East? Please substantiate your answer

NO

D. Business relationship and cultural practices in Asian Countries

19. Do you believe it beneficial to include government bodies as a business partner(s) in any of your technology exploitation or business ventures

DO NOT KNOW. NO SPECIFIC EXPERIENCE

20. Advise where governmental or state interference or influence plays/or have played a role in business ventures in:

NO SPECIFIC EXPERIENCE

21. Do capitalism and other political regimes and socioeconomic structures play a role in your decision to invest in a particular country, and if so what in particular impact on your business strategy in countries of such nature? Please limit your response to three countries maximum.

NO

22. Advise on the role that cultural sensitivity plays in business relationships in your organization's dealings with people or organizations in any of the following Countries:

DO NOT KNOW

23. In your experience do you find language a barrier to entry in business dealings with Eastern Cultures?

NO

E. Intellectual Property Management and Business strategy

24. In your company are business and IP strategies aligned, or are these treated as different concepts?

NOT PERFECTLY ALIGNED

25. Please describe your company's general IP strategy business model?

TOO OPEN THE QUESTION

26. If your IP Business model(s) are different for, different countries, please advise how these would differ for

NO RELEVANT DIFFERENCES

27. If you have different strategies for the various jurisdictions, would you ascribe any of these to Cultural influences? Please motivate your answer.

28. Please advise, in your corporation, if you have had any exposure or application of specific legislative influence on IP ownership and management thereof, including antitrust provisions (promoting innovation and competition) that impact on your business entitlement to ownership of inventions made by its employees and/or contracting entities

NO

29. Does your corporation profits from IP ownership in any of the following:

NO

30. Do you believe IP Mining (concept of acquiring third party IP illegally in one country and exploiting it without penalty in countries where legal systems are poor and IP rights enforcement non-existent are used by Western Corporations in Eastern Countries

I BELIEVE NO GENERAL ANSWER CAN BE GIVEN WITHOUT CONSIDERING SPECIFIC INSTANCES

Questionnaire response 4:

B. General Business and IP Protection means

1. Do you have any current businesses in any of the following countries, and if so, please indicate business sector, i.e. chemicals, fuels, pharmaceuticals, Mining, etc:

Yes in the Chemicals sector

2. Do you believe that the IP protection mechanisms in the following countries are sufficient, please substantiate your answer:

Country	Yes/No	Protection mechanism(s)
USA	Yes	World leader
Europe	Yes	Good regional process
China	No	Enforcement lacks teeth
Japan	Yes	Sophisticated bench and bar
Malaysia	No opinion	
India	No opinion	

3. Do you protect your IP in these countries, and if so by which means:

Country	Yes/No	IP Protection ⁴¹
USA	Yes	Patents and trade secrets
Europe	Yes	Patents and trade secrets
China	Yes	Patents and trade secrets
Japan	Yes	Patents and trade secrets
Malaysia	Yes	Patents and trade secrets
India	Yes	Patents and trade secrets

⁴¹ Focus here specific on Intellectual Property Laws and aspects relating thereto, Question 8 considers alternative protection of IP. Technology etc to IP Laws

4. In your view do you believe that the law(s) for IP protection are rigorously enforced in these countries

Country	Note at least one experience your company have had to substantiate your response
USA	Limited enforcement experience
Europe	Limited enforcement experience
China	Enforcement of trade secret rights required navigating a complex bureaucracy, and coordination among multiple local and national government agencies
Japan	Limited enforcement experience
Malaysia	Limited enforcement experience
India	Limited enforcement experience

5. What additional (to patent and trade mark legislation) do you rely on for protection of your business and its IP in the following countries⁴²:

Country	Additional IP protection Means
USA	None
Europe	None
China	None
Japan	None
Malaysia	None
India	None

6. Do you believe WIPO membership ensures compliance of its members to general acceptable IP behaviour? Please motivate your response by means of illustration?

No opinion

⁴² Of relevance here are any policies, international treaties, diplomacy or other legislation

7. In your view, do you believe that despite great efforts to comply with the TRIPS Agreement and WIPO's rules that there still remains problems with a lack of protection and enforcement of IP Rights in certain countries? In your response, please consider USA, Europe, China, Japan, Malaysia and India.

No opinion

8. In your view, how do formal IP protection mechanisms compare in view of Japan to China and USA to Europe (Specifically considering the legal system and its value in protecting IP rights of Westerners exploring business opportunities in the East).

Comparison of IP Protection Mechanisms

- a. Japan vs. China: No comparison. Japan has a well established patent law system, and a sufficient number of sophisticated lawyers and judges trained to handle IP matters. Enforcement is fair and relatively prompt. In my experience, both domestic and international companies are treated fairly in these proceeding. China is still developing its rule of law, and enforcement appears to be far behind other countries. There is a sense that, in many cases, it is simply not possible to prevent IP infringement in China. Companies continue to bring intellectual property into the country only because they can't ignore the potential commercial benefits of doing business there.
 - b. USA vs Europe: Both provide adequate protection of IP, albeit through legal systems that are based on some very different legal principles (i.e., first to file vs. first to invent rules for patents, rights of co-inventors, etc.), and despite the interplay of both regional and individual sovereign regimes in Europe. Both systems are well understood by sophisticated western lawyers, and both can be adequately managed by in-house legal departments.
9. Patent legislative changes / improvements in China as affected by influence of Western systems. In your experience, have changes necessarily meant that IP vulnerabilities have been reduced? Please substantiate your answer?

I am not an expert on China, but in my opinion the influence of western legal systems is improving the rule of law in China. More progress is required, however, in bolstering and simplifying enforcement procedures in China.

C. Exploitation of IP

10. Does your company actively develop IP (in the broader sense of the word, i.e. registerable intellectual property rights, also know how, technology development etc)? If yes, please include a brief description of the scope of such developments.

Yes, our company actively develops IP. We have a robust R&D function that develops new chemical compositions and processes, some of which are protected as trade secrets, and some of which are protected by patents. Our technology development initiatives and related IP protection programs operate globally in all of the areas where we conduct business.

11. In establishing any new business opportunities, including any form of exploitation of technology, would intellectual property rights have an impact, or be business driver?
- a. If yes, please substantiate with reference to the impact value, IP risk of third party proprietary items, enforceability of IP (own and that of third parties), IP systems and laws
 - b. If no, why not?

Intellectual property rights are a consideration in establishing new business opportunities, but generally not a business driver. In the chemical industry, many of the most valuable intellectual property rights are maintained as trade secrets, which are not searchable and thus cannot be readily identified, so there is no way to make a business plan around these rights in the same manner as patent rights.

12. What is your typical approach with regards to IP and its application, protection and enforcement when doing business, or setting up a business deal in any of the following countries⁴³:

Country	IP Approach/Strategy
China	Determine whether IP is better maintained as a trade secret, or protected by patent, depending upon its importance to the business, and the ability of third parties to design around a patent for such technology. These decisions are made centrally, but informed by employees in the affected countries/regions.
Japan	
Malaysia	
India	

13. Would your answer to question 10 above be different if the country in which your business establishment is made would be one of Japan, China, Malaysia or India as opposed to Europe and the USA?

a. If yes, please motivate answer

The answer to 14 would not change based on the location of the business.

14. In your IP commercialization strategies would your corporation's approach differ when dealing with an Eastern counterpart as opposed to a Western investor)

No

15. What do you believe are the IP piracy challenges facing your specific industry?

China is a major concern in term of IP piracy. The nature of our business requires us to compete there, but IP theft is a significant concern, especially given the high rate of turnover among Chinese employees. Important trade secrets (which are the primary form of IP protection in our industry) can literally walk right out the door, with little hope of stopping the damage if the information is taken to a competitor.

⁴³ For example, do you have your own employees established in the foreign country to run your business, or do you use local force; do you familiarize yourself 100% with foreign countries business and IP processes; do you establish IP in the country before entering it, do you defend your IP, etc.

16. What is your strategy to deal with piracy and counterfeit goods in the Far East

We avail ourselves of the enforcement procedures that are available when required. The only other alternative is to stop doing business there, and this is not a realistic option.

17. What is your policy/strategy with regards to IP litigation in:

a. Defending your own IP

i. Validity

ii. Infringement by 3rd Parties

Policy/Strategy with respect to IP litigation:

a. Defending our own IP. We vigorously defend our IP when necessary. To my knowledge, we have never been challenged on a patent that has been issued. We do frequently get challenged on trade mark applications, and we engage in litigation until an appropriate settlement is reached—which always happens prior to a decision on the merits.

b. Infringing 3rd party IP. To my knowledge, we have never brought a claim for patent infringement against a third party. We have on occasion engaged in litigation to protect trade secrets—we do so whenever we believe our trade secrets have been misappropriated. We also play offense on trade marks matters when there is an apparent overlap in our markets.

18. Do you have a different infringement litigation strategy when suing defendants that are based in the Far East? Please substantiate your answer

Our strategy in the Far East is not different. We use the tools that are available to meet the same objectives—protect company property.

D. Business relationship and cultural practices in Asian Countries

19. Do you believe it beneficial to include government bodies as a business partner(s) in any of your technology exploitation or business ventures

We have not seen a need to include government bodies as partners in our technology development initiatives.

20. Advise where governmental or state interference or influence plays/or have played a role in business ventures in:

Governmental influence in the Far East has not been substantially different than any other part of the world. Governments are of course involved in regulatory matters including site development, permitting and enforcement of regulatory regimes.

21. Do capitalism and other political regimes and socioeconomic structures play a role in your decision to invest in a particular country, and if so what in particular impact on your business strategy in countries of such nature? Please limit your response to three countries maximum.

Capitalism and political regimes are not significant drivers in determining our decision to invest in a country. By far the most important driver is our customers. We follow our customers when it makes economic sense to do so.

22. Advise on the role that cultural sensitivity plays in business relationships in your organization's dealings with people or organizations in any of the following Countries:

We have operations in 13 countries, including China, Japan and India, so of course we make every attempt to be sensitive to our employees, customers, suppliers and other stakeholders in those countries.

23. In your experience do you find language a barrier to entry in business dealings with Eastern Cultures?

I do not think language is a barrier to the Far East. Our foreign affiliates are staffed by local employees—we use very few expatriates. Personally, I can read, write and speak Japanese.

E. Intellectual Property Management and Business strategy

24. In your company are business and IP strategies aligned, or are these treated as different concepts?

IP is part of our business strategy, but not a major driver. We need to ensure that new initiatives do not infringe third party IP rights, and we take the appropriate measures to preserve and protect our existing IP, but IP is more a means to an end—that being the development of products our customers want at competitive prices.

25. Please describe your company's general IP strategy business model?

Decline to answer.

26. If your IP Business model(s) are different for, different countries, please advise how these would differ for

Decline to answer.

27. If you have different strategies for the various jurisdictions, would you ascribe any of these to Cultural influences? Please motivate your answer.

Cultural influences do not affect our IP strategies in different countries.

28. Please advise, in your corporation, if you have had any exposure or application of specific legislative influence on IP ownership and management thereof, including antitrust provisions (promoting innovation and competition) that impact on your

business entitlement to ownership of inventions made by its employees and/or contracting entities

I have sought local legal advice in a variety of countries to determine the type of agreement that employees in those countries need to sign in order to ensure that any inventions developed in the course of their employment will be assigned to the company. Our standard Confidentiality and Invention Assignment Agreement has been tailored accordingly in each country we operate.

29. Does your corporation profits from IP ownership in any of the following:

Decline to answer

30. Do you believe IP Mining (concept of acquiring third party IP illegally in one country and exploiting it without penalty in countries where legal systems are poor and IP rights enforcement non-existent are used by Western Corporations in Eastern Countries

I am not aware of any specific instances of IP mining by Western companies.

Annexure 11 – General Counsel Round Table results set EPN Group Past Discussion

East Asian IP Protection Strategies - Intellectual Property⁴⁴

Questions:

(1) For those who deal with IP issues in East Asia, how does your IP protection strategy differ from country to country (e.g., Singapore v. Japan v. China)? (2) Also, does your overall East Asian IP strategy differ greatly to your protection strategies for the U.S. or Europe?

Response Summary:

Total Number of Responses	11
...Reporting no difference in overall patent strategy across countries	5
...Reporting a difference in strategy depending the business, customs, or size of target countries	5
...Still forming international patent strategies	1

Complete Responses:

Respondents reporting no difference in overall patent strategy across counties (1-5):

Response 1:

Our strategies are the same in Asia as in Europe--they are country specific based on the technology, which product, where are the markets, competitor locations and opportunities to monetize the intellectual property. Although the enforcement of IP rights in Asia may not currently be up to European standards, we assume that enforcement will mature in these countries and file accordingly.

-High Technology

⁴⁴ <https://gcr.executiveboard.com/Members/EPN/Blogs/Abstract.aspx?cid=100052287> (June 2007)

Response 2:

We feel that the protection strategies in the US, Europe and Japan have the same standards, and no extra effort has to be undertaken. For China however, we have put in place an appropriate team directly depending from the Country Manager. An in-house Chinese lawyer represents our interests, and also handles IP matters (using the services of local IP attorneys). We plan to hire an in-house Chinese patent attorney when the amount of work in China increases.

-Manufacturing

Response 3:

We file a lot of patents in China, but not much in the rest of East Asia. We probably file almost as many patents in China as the US.

-Manufacturing

Response 4:

We see no differences in the strategy comparing East Asia. It's not the strategy that differs; it's the enforcement which shows significant differences.

-Chemicals

Response 5:

No

-Manufacturing

Reporting a difference in strategy depending the business, customs, or size of target countries (6-10):**Response 6:**

Our foreign filing strategy is based on identifying the major market countries. Beyond that, some countries have different patent-like tools (such as utility models) that are available which we always consider as less-expensive alternatives to patents. Japan is relatively expensive which indicates a lower filing rate in Japan. China is relatively cheap, with unsettled patent law currently, but a huge growth rate which would indicate a possibly higher filing rate. We also take into consideration local laws such as the patentability of non-patentability of software in different countries.

-High Technology

Response 7:

Most of our product line managers have developed specialized lists of countries for which they normally would like to obtain IP protection. The selection of countries on each of these lists is driven almost entirely by consideration of actual or potential business activity related to that particular product line. Therefore, any differentiation from one country to another, or one region to another, is driven by customized business intelligence.

-Chemicals

Response 8:

China and Japan are "Target Companies" for most filing. Only "High Expectation" applications are filed elsewhere (never in a small country such as Singapore).

-Manufacturing

Response 9:

Business models differ for Eastern vs Western environments, also the culture of the region and its IP enforceability are considered, so it does differ, in some cases quite substantially.

-Manufacturing

Response 10:

Depends on what is granted in the U.S. and/or Europe as to how our IP protection differs in the East Asian countries.

-Manufacturing

Respondents still forming international patent strategies (11)**Response 11:**

We are just formulating our strategy now based upon what we have already learned.

-Manufacturing

Language Barrier in Managing IP ⁴⁵

Question:

When managing your IP in foreign countries, do you find language to be a barrier? If so, how big of a barrier is it and how have you overcome it?

Response Summary:

Total Number of Responses	11
...find language to be a barrier	5
...do not find language to be a barrier	6

Complete Responses:

Respondents that find language to be a barrier in managing IP (1-5):

Response 1:

The local counsel that we use outside the US are all skilled in English which is one criterion that we use in selection. Translating patent applications is always an expense but we push to keep costs in line by negotiating fees. The biggest language challenge that we've run into so far has been with European and US outside counsel dealing with our internal office in Japan.

-High Technology

Response 2:

Language is indeed a barrier. Fortunately the company is represented worldwide so we can use local representatives as a kind of translators. Even English is not always the language of choice. Some South American countries require special attention.

-Chemicals

Response 3:

As a rule of thumb, and English being the corporate language, all applications have to be written in English. However, our inventors working in France and Germany for example

⁴⁵ <https://gcr.executiveboard.com/Members/EPN/Blogs/Abstract.aspx?cid=100052289> June 2007 (Last visited on 20 June 2010)

prefer to write in their mother tongue and prefer to file priorities with their national offices. Therefore we rely on local patent attorneys mastering German or French. We have inventors also in Korea, and plan to have R&D done also in China. As we need local attorneys to defend our IP in these countries, we leave the priority filings in their hands. This is an extra problem, since we cannot control the quality of the text and claims at that moment. Only when entering the Patent Cooperation Treaty (PCT) will we do this in English, and then we can adapt the text and claims to improve the quality of the application if necessary.

-Manufacturing

Response 4:

Yes, for German applications we plan on switching to German law firms. Right now we have the US firm draft the draft then send it to the DE counsel to file, but the German inventors have requested German speaking counsel.

-Manufacturing

Response 5:

In most countries it is not a problem. The concern is, however, with countries such as Japan and China where "phrases" rather than words represent the bulk of the language where we believe there are barriers that are not easily overcome.

-Manufacturing

Respondents that do not find language to be a barrier in managing IP (6-11):

Response 6:

Very little or none. If "managing your IP" refers to prosecuting patent and trade mark applications, a primary factor in our selecting local agents is their ability to bridge the language barrier. If it refers to detecting and protecting IP generated abroad, the barrier is cultural, not language. If it refers to licensing and enforcement, we generally have sufficient language capabilities within the management of our international subsidiaries and JV's, we sometimes use dual-language U.S. employees as liaisons, and/or we engage dual-language international counsel.

-Chemicals

Response 7:

I find no language barrier when managing IP in foreign countries. What I do find is that interpretations of goods/services can vary from country to country and in some cases clarification and/or amendment is required before a trade mark can issue.

-Manufacturing

Response 8:

We get by with English around the world. Sometimes the discussions are a bit slower, but it always works out.

-Manufacturing

Response 9:

Not a problem. We do everything in English or make English translations.

-Manufacturing

Response 10:

Language is not a barrier for us in the East Asian countries; we have very good communication with our foreign associates.

-Drugs

Response 11:

Language has not been a barrier. Virtually all who work in the IP field can communicate in English.

-High Technology

Annexure 12 – Internet Research – Company main IP strategies in emerging markets

The list of URL's below were all viewed for the purpose of the conclusions author has come to in Chapter VI.

http://www.google.co.za/search?hl=en&rlz=1R2SKPB_enZA347&q=business+Key+strategy+for+Intellectual+property+protection+in+East+Asia&btnG=Search&meta=&aq=f&oq=
=

http://www.google.co.za/search?hl=en&rlz=1R2SKPB_enZA347&q=%E2%80%A2%09Employee+retention+initiatives+to+prevent+intellectual+property+losses&btnG=Search&meta=&aq=f&oq=

Key items:

Incentive sharing and confidentiality undertakings

http://www.csoonline.com/article/204600/Intellectual_Property_Protection_The_Basics?page=4

<http://www.articlesbase.com/software-articles/intellectual-property-protection-issues-in-outsourcing-306114.html>

<http://www.reports.eads.net/2008/en/book2.html>

<http://www.reuters.com/article/pressRelease/idUS101576+30-Sep-2009+BW20090930>

Presentation of IP strategy at Growing Business with IP – EADS IP Protection in China -
http://www.google.co.za/search?hl=en&rlz=1R2SKPB_enZA347&q=Patent+strategy+in+East+Asia&btnG=Search&meta=&aq=o&oq=

<http://www.allbusiness.com/labor-employment/human-resources-personnel-management/10599565-1.html>

<ftp://ftp.software.ibm.com/common/ssi/sa/st/n/oi103008usen/OI103008USEN.PDF>

Continual review and update IP protection measures

http://www.hq.org/articles/article_896.html

<http://www.meti.go.jp/english/report/downloadfiles/gIT0333e.pdf>

http://docs.google.com/gview?a=v&q=cache:C7x53acD42EJ:www.aseansec.org/17993.pdf+methods+for+intellectual+property+protection+of+sensitive+information+in+East+Asia&hl=en&gl=za&sig=AFQjCNH9x8NRvYG3qbg78lzcC3vj_IBqQg

Strategies for Intellectual Property and Preventing Technology Leakage in China:

A Comparison of Strategies Used in Japan, America, and Europe -

http://www.eaber.org/intranet/documents/42/896/JCER_Iteya_06.pdf

Strategic business approach - Alignment of market opportunities with patent portfolio

<http://www.epo.org/patents/patent-information/business/valuation/faq.html>

<http://iiprd.com/patents.html>